MONDAY, APRIL 15, 1872.

ORIGINAL LECTURES.

ABSTRACT OF A CLINICAL LECTURE ON A CASE OF CARIES OF VERTEBRÆ.

BY H. C. WOOD, JR., M.D.,
Attending Physician to the Philadelphia Hospital.

GENTLEMEN,—The specimen before you to-day illustrates a rather rare affection,—namely, caries of the cervical vertebræ,—upon which I propose to make a few remarks. The case is interesting, as showing how the diagnosis is often very obscure early in the disease. Dr. Moritz Benedikt (*Elektrotherapie*) states that he has seen cases which were apparently simply eccentric cervico-brachial and intercostal neuralgia, but which time showed to be really commencing caries of the lower cervical vertebræ. Accordingly, in the patient from whom this specimen was taken, the first symptom was a persistent intolerable neuralgia, affecting both arms, though more unbearable in the right. Sooner or later, however, in most cases of caries of the cervical vertebræ, there is a marked enlargement of the vertebræ concerned, accompanied, or even preceded, by torticollis. Whenever, then, you have persistent cervico-brachial neuralgia followed by enlargement of the cervical vertebræ, always bear in mind the probability of caries. Do not lose sight of this probability because neither pressure on the part immediately affected, nor tapping upon the head, or passive motion, gives pain. At my last clinic you saw me perform all these acts without causing complaint; yet, as you see, there were no less than three vertebræ in an advanced state of caries. Until the opposing and articulating surfaces are involved, there is, indeed, in many cases not merely a capability of passive motion, but also a fair degree of voluntary movement possible.

The fact of enlargement of the vertebræ preceded by neuralgia and followed by partial paralysis does not, however, warrant absolutely a diagnosis of caries, for you will find described by Rosenthal, in *Zeitschrift für prakt. Heilk.*, 1866, a case of periostitis of the cervical vertebræ in which all these symptoms were present. Generally, the diagnosis of such a case can be made out by the existence of periostitis elsewhere, and by the form of the swelling. Instead of the latter being, as in caries, a large undefined mass, with projecting spinous process, often several small tubercle-like swellings can be distinguished upon the vertebral surface, cohering, it may be, or aggregated into one mass.

Again, it is possible that sarcomatous growths may occur in the cervical vertebræ, and, by pressure either on the cord or upon the nerve-roots, simulate caries.

According to Rosenthal (*loc. cit.*), the diagnosis can generally be made out by the local use of electricity. He says if the two electrodes of an induction apparatus be placed opposite one another upon the vertebræ in the normal condition, no pain is excited; but as the diseased spot is approached, burning and sticking pain begins to be felt, and becomes more and more severe, until at last it gets to be unbearable. This condition he has also noticed in some cases of tabes: so that it is not absolutely characteristic of caries, although apparently sufficing to distinguish it from any disease with which it is liable to be confounded. Unfortunately, this test was not applied to our case.

Another very important diagnostic use of electricity is by testing the electro-contractility of the paralyzed muscles. As is well known, when a nerve-trunk is pressed upon so that its function is interrupted, the muscles which it supplies soon lose their electro-contractility. This deterioration often commences as early as the third day after the advent of the paralysis, and rapidly increases, so that even before the end of the second week it is complete. In other cases it is not at all manifest until the end of the first week; but when there is complete paralysis from pressure upon a nerve-trunk I believe the electro-contractility is always lost by the end of the third week, if not before. In acute myelitis, the electro-contractility often persists or is even abnormally active for a considerable time after the complete loss of voluntary motion.

In the paralysis of vertebral caries there is generally the same persistence of electro-contractility, showing that the paralysis is not due to pressure upon the nerve-roots, but to changes in the cord. Benedikt seems to believe that this shows that the trouble in the cord is always inflammatory in its nature. Be this as it may, the importance of the fact in a diagnostic point of view cannot be gainsaid. As you saw at our last clinic, there was no diminution whatever in the electro-contractility in the paralyzed muscles of our patient. If, however, the paralysis, instead of having the origin which it did, had been due to pressure on the nerve-roots from tumor or periosteal swelling, no response would have been elicited by the current. A very curious fact noticed was, that in the arm which had nearly lost its ordinary sensibility the electro-sensibility was much greater than in the other arm. The one arm might have a pin run into it without any complaint being made, whilst the induced current was bitterly complained of; the other arm, sensitive to the prick of a pin, seemed almost dead so far as sensibility to the galvanic current was concerned.

A diagnostic criterion insisted upon by Moritz Meyer is the frequent occurrence of reflex movements. He says, "Of these paraplegia there is a second and highly important diagnostic criterion,—namely, the reflex movements which occur in the paralyzed extremities whenever the lower part of the cord is subjected to pressure or the skin irritated, and sometimes through the influence of cold," etc. There can be no doubt about the fact that the reflex sensibility of the cord is often exceedingly heightened in these cases. Thus, recently I was consulted about a case in which a smack on the bare leg would cause it to fly upward as though the leg of a puppet moved with springs. Projecting stiffly at right angles to the body, it would remain so for a length of time if not put back, until at last, the muscles gradually relaxing, the leg would sink into its normal position. Sometimes these movements would be executed without obvious cause, and the sufferer, unable to assist himself, would call for the nurse to put his leg down.

In the woman whose case we are to-day especially studying, no such increase of the reflex excitability was present whilst she was under observation, nor, so far as known, did it ever exist. As to the cause of such differences, I do not care to-day to hazard an opinion.

S.; colored; aged 21 years. Has led an abandoned life, and been in the venereal ward of the hospital several times. Some three or four months since she suffered severely from neuralgic pains, more or less constant, but at the same time paroxysmal, commencing in the shoulders and shooting down the arms. Both arms were affected, but the pain in the right arm was much more intense. After these pains had persisted for an uncertain length of time, there appeared a lump in her neck; and shortly after this the pain began to subside in her arms, and she began to notice that they were growing weaker. Since the arms were affected the legs have been so also.

February 3, 1872.—Two weeks ago she could walk with difficulty, but has been quite unable to do so since. When

sitting on a chair she can place the left foot on another chair; she is unable to lift the right foot from the floor, but can move it about slightly. Right arm completely paralyzed, except that she can move the fingers slightly; somewhat œdematous. The use of the left arm has been gradually failing for two weeks at least, and she is not now able to raise it to the top of her head; but she can and does feed herself, although with difficulty. She has no perceptible loss of vision, no paralysis of face or tongue, no loss of hearing. She suffers no pain, except in the region of the sternum and under the right shoulder. Sits with head bent forward and a little to the left; does not move it.

There is a tumor occupying the whole cervical region posteriorly; hard and non-sensitive, somewhat pyramidal in shape, the apex corresponding to the third or fourth cervical spine.

Striking the top of the head downward gives no pain; moving the head laterally causes no pain. Neck is extremely rigid; but moderate twisting creates no pain. Attempts to straighten the neck give pain in the breast.

Electrical examination.—Right side: Muscles of foot respond very imperfectly to a strong primary induced current. Tibialis anticus responds to the primary induced current only when it is strong. When a very strong current is applied to the motor points of the gastrocnemius, it responds feebly, and apparently reflex contractions are excited in the extensors. In the thigh, the sartorius and quadratus femoris respond moderately well to a strong current.

Left side: Muscles of foot respond very imperfectly indeed. Decided loss of electro-sensibility in the left leg as compared with the right. Muscles of left leg make fair response to a very strong primary induced current. They respond better than those of right leg. In the thigh there is decidedly greater muscular sensibility in right than left. Muscles of left thigh respond imperfectly, but better than those of right. When tested with electrical brush, the right side is more sensitive than the left.

Right arm: Interossei respond well to primary induced current; also abductor of little finger, extensor of index-finger, extensor pollicis longus, and general extensor of fingers, all respond very actively,—much more so than the leg-muscles. Pronator radii teres and all the flexors respond exceedingly actively. The muscles supplied by the median nerve respond very actively to stimulation of the nerve by a primary induced current. Muscles of arm—biceps and triceps—respond actively.

Left arm and hand: The muscles respond no more than those of the right. Electro-sensibility decidedly greater in the right than in the left arm.

Sensibility.—On testing with the compass-points it is very difficult to come to an accurate conclusion, as her answers are very wild and non-agreeing. There is undoubtedly, however, great loss of sensibility in both legs, but the loss is more complete in the right than in the left leg. In the right arm sensibility is exceedingly slight; in the left arm it is only slightly diminished.

There are no spontaneous reflex movements of legs, and the hot spoon fails to produce them.

February 13.—All the muscles of right arm, forearm, and hand respond well to a secondary induced current. Those of the left arm also respond well. Electro-sensibility is greater in the right than in the left arm. Left arm is certainly weaker than it was a few days ago.

February 18.—Patient sinking. As there is a profuse foul leucorrhœa, and she has been passing her urine and fæces involuntarily, it has been almost impossible to keep her clean. Bed-sores are beginning to form on the paralyzed parts. She has been carefully watched to discover any unilateral sweating or inequality of the pupil, but neither has been detected.

February 20.—Dead.

Autopsy.—Externally to the bone and close upon the posterior surface of the spinal column is a long narrow abscess, extending from the third cervical vertebra to the second or third dorsal. All of the vertebræ beneath it are denuded and carious. The bodies of the fourth and fifth vertebræ are profoundly affected, and have evidently been the starting-point of the disease.

ORIGINAL COMMUNICATIONS.

NITRITE OF AMYL IN EPILEPSY.

BY S. WEIR MITCHELL, M.D.

I HAVE long desired to make use of nitrite of amyl at the outset of a case of epilepsy, but only of late have been so fortunate as to have charge of suitable cases. A case suited to make practicable the exhibition of this rapid agent should have some distinct aura or other form of warning symptom, and this must be of such a nature as to leave the patient long enough in possession of himself to enable him to employ the remedy.

A few weeks ago a young farmer consulted me as to a peculiar form of epilepsy, which seemed most suitable for testing the value of various modes of cutting off the attack by interfering with the early symptoms.

J. C., æt. 23, was excessively prone to self-abuse until, at the age of eighteen, he began to indulge to an extravagant extent in venery. At twenty he had a chancre, but thus far no secondary results. On the 4th of March, 1871, he became slightly intoxicated, went to a neighboring city, and for some days gave himself up to sexual excitements to such an extent, as he describes it to me, as to show that either he had unusual virile power or that he exaggerated his prowess. Be this as it may, there is no doubt that he ran into great excess, and that the punishment was distinctly born of the offence. On March 9 he felt feeble, but nevertheless had connection four times that night. On the 10th he had, twice, twitching of the left forefinger. On the 11th this grew worse, and on the 12th, after unusual sexual excesses, he had a prolonged spasm of the left arm. It began in the hand, and in a few minutes involved all the fingers in forced flexion. Then the wrist bent, and the flexed forearm was forcibly contracted. The attack, which surprised the patient but did not alarm him, ended with slight vertigo. A week went by without further trouble, when a series of complete epileptic fits began, always preceded by the local convulsion which I have described. The fits, which at first came on daily, soon lessened in number, and of late have recurred but once a week. On two occasions they have been sudden and without warning, but in all other cases the hand has been affected with spasm, followed in a few minutes by vertigo, twisting of the head to the left side, left unilateral convulsion, and finally bilateral spasms, with occasional tongue- or cheek-biting. The attack is followed by prolonged stupor.

Many remedies have been vainly employed, and even the bromides in full doses fail to do more than lessen the number of attacks; while strychnia, valerianate of quinia, zinc, and other agents have all alike failed to afford relief.

I made many experiments with a view to cutting short the fit by interfering with the precedent local spasm; but neither blisters along the nerve-tracks which are not tender, nor a ligature tightly applied, proved of any use. I then gave the patient a drachm of chloroform in a phial, directing him how to inhale it from a handkerchief, but soon found that he was unable to inhale enough of it to serve his purpose. As a last resort, I gave him in a very small phial three or four drops of nitrite of amyl, and showed him how to inhale it by putting the open phial up one nostril while with one finger he closed the other and then made a few full inspirations. The first attempt failed, because, as he said, the spasm of the left limb made him nervous. On the second occasion he began to breathe it the instant the fingers twitched,—having pulled the cork of the phial with his teeth. In a few moments he felt his face flush, the carotids beat violently, his head felt full, and, the spasm ceasing, the attack at once, and for the first time in his experience, was cut short. Four days later he thus cut short another attack; and the experiment has since succeeded in eleven fits, and failed, from too late use of the nitrite, in two. Moreover, the attacks have lessened in frequency, and now come on only once in ten to twenty days. Not only is there no evil effect from the drug, but his memory

has improved and his nutrition gained considerably. He is again taking bromide of lithium.

In a second instance of epilepsy, with aura proceeding from the right hand, the nitrite of amyl has been successfully used in two attacks; but commonly the cerebral phenomena in this, as in most cases, follow too soon to be of value,—or, rather, too soon to allow of time for the nitrite to affect the intracranial circulation.

This must, unhappily, be the case in most epilepsies; but in all which have an aura or local spasm distant enough in time from the cerebral symptoms, it may be of value, and ought certainly to be employed.

I hesitate, as yet, to speculate on the relations between the physiological influence of this interesting agent and the present views of the mechanism of epilepsy; but I do not feel justified in withholding any knowledge, however limited be the foundation on which it rests, when it has proved so distinctly valuable.

In another class of rare cases it may also prove of service. There are certain epilepsies in which the spasms last for hours,—one fit following another. In these I commonly employ, with success, injections under the skin of bromide of lithium, using thirty or forty grains in three or four localities; but I have twice checked these attacks at once by inhalations of the nitrite of amyl. In one of them there was a second fit, but no more,—which was unusual. In the other, which lasts always several hours, I used the nitrite at the close of an hour, in the third convulsion. Relaxation instantly occurred; the fit passed off, and no other followed. Ether has been frequently employed in this case; but it merely mitigates the attack, and its use has to be kept up for hours.

TWO CASES OF "FROST-BITE."

BY J. H. T. KING,
Fort Ransom, D.T.,
Captain and Assistant-Surgeon U.S. Army.

NOTHING unusual or uncommon is claimed for these cases, nor yet any originality in the treatment. *Per contra*, they are simply recorded as illustrations of the surgical practice of this hyperborean region during our long and severe winters.

January 3, 1868, W. M., æt. 37, left Fort Totten, D. T., in company with two half-breeds, all travelling on foot, in charge of the government mail, which was carried on a dog-sleigh.

On January 6, when thirty-eight miles from the post, they were overtaken by a violent snow-storm, and had to seek immediate shelter in the nearest ravine, where they soon became buried in the snow, and so remained all night. Their sufferings were beyond description; the thermometer at Fort Totten indicated 40° below zero, and it seems miraculous that any of the party survived.

Next morning the hurricane raged with increased fury. W. M. felt sick and unable to move; the two half-breeds, however, started for a "mail shanty" about three miles off, which they reached safely, and would have returned with assistance to W. M. but for the terrific violence of the gale. The wind blew and the snow drifted to such an extent that it was impossible to see more than a few feet ahead.

Not until the fourth day—January 9—did this dreadful tempest moderate sufficiently to permit them to go in search of W. M. They found him roaming about on the prairie in a semi-insane state, eating a piece of one of the sleigh-dogs, and conveyed him to the "shanty."

At this wretched hut to which the half-breeds had conducted him W. M. was compelled to stay till February 10, when he was brought to Fort Totten in a half-starved condition, more dead than alive. On examination, both feet were found to be sphacelated, with the line of separation formed over the metatarsal bones. Four fingers on each hand were also mortified, the line of demarcation being near the metacarpo-phalangeal articulations. The thumbs had escaped injury. As he had been thus helpless and neglected for weeks, the absolute necessaries of life barely procurable, and not able even to feed himself, the *tout-ensemble* can better be imagined than portrayed.

There was considerable constitutional disturbance of an asthenic type, and great depression of the system; also a fungous appearance of the gums, pathognomonic of scorbutus.

On his arrival a full anodyne was exhibited, with brandy and beef-tea at intervals, to recuperate his natural powers preparatory to operative interference. Antiseptic remedies were applied to the feet and hands.

February 11.—Symptoms assuming a grave aspect. Amputation of parts of each foot and both hands was manifestly demanded, yet he was so much reduced and prostrated that it seemed questionable if he could bear the shock of an operation. At all events, it was determined to delay twenty-four hours longer, hoping that some amelioration might occur.

February 12.—Sinking rapidly; obviously no time to lose if anything was to be done. Acting-Assistant-Surgeon G. C. Douglass, U.S.A., who was on duty with me at the post at that time, coincided with my views of the case. Accordingly, the patient was placed under the influence of chloroform by Dr. D., and I performed "Hey's operation" on the left foot in the usual manner. A profuse hemorrhage took place, owing to the morbid condition of the man's blood peculiar to scurvy, and he fell into a state of syncope more than once before this (first) operation was concluded. Brandy had to be frequently administered. As he was now verging on collapse, I hesitated before proceeding with the right foot. Dr. D. agreeing with me that it was preferable, if possible, to amputate, I immediately operated by "Hey's method" on the right foot also, using all the expedition I could. Again the hemorrhage was copious; nevertheless, he passed through the ordeal better than we had anticipated. We next put him in bed, giving opiates and stimulants freely.

February 13.—Slight improvement. Amputated all the fingers on both hands, leaving a minute portion of the first phalanx of each index-finger.

February 15.—All the stumps dressed. No attempt at union.

February 28.—During the past two weeks there has been great loss of blood, on account of the constant oozing from the stumps, associated with hemorrhagic dysentery. The patient is terribly debilitated, and, there being neither vegetables nor fruit obtainable, it is difficult to remove his scorbutic diathesis.

It is superfluous to follow the daily history of the case. No union of any of the flaps was observable for many weeks; they required to be very carefully dressed every day, and retained in accurate coaptation by means of plaster. Chalybeates, styptics, and astringents were employed to arrest the incessant hemorrhages, and every attention in the shape of nursing; but had he not possessed an indomitable spirit he never could have endured such protracted suffering.

Fortunately, about the end of March some buffaloes were killed in the vicinity; and fresh buffalo-steaks at once started him on the road towards recovery. He continued gradually but slowly to gain, and in June all the stumps were firmly healed over, sound, and without a blemish. At this period he left for his home in one of the eastern States, and in the course of a few months was able to walk long distances without difficulty.

Private J., Co. F, 20th U.S. Infantry, admitted into the post hospital at Fort Ransom, D.T., 1.30 P.M., December 9, 1871.

At the time of his admission he was completely benumbed with the cold; pulse weak, tongue chilly to the touch, and both feet very badly frozen; the right foot solid as ice nearly to the tibio-tarsal articulation, and the left half-way to that point.

This soldier was instantly taken into a cold room, and both feet placed in a tubful of snow. Gentle friction with snow was continued for many hours over the congealed parts. The doors and windows of the room were thrown wide open, and every precaution was adopted to obviate restoring the vitality too rapidly. Temperature of atmosphere of room 15° F.

In two hours reaction commenced in the left foot, and the integument became much flushed. The right foot responded more slowly, and the frictions with snow were kept up for many hours.

During the above period small quantities of hot coffee, toast, and brandy were given.

It may not be unimportant to remark here that this patient had no pain whatever in his feet prior to the inception of treatment. About 6 P.M. he was placed in bed and ordered to have turpentine to the feet, and ℞ pil. opii, gr. j, secundis horis, si opus sit.

December 10.—Feet œdematous and ecchymosed. Total anæsthesia of right foot below a point corresponding to the scapho-cuneiform articulation. Partial sensibility and cinesis in toes of left foot; pelioma in this foot more superficial. To have a mild but nutritious diet, opium when necessary to relieve pain, and to persevere with the terebinthinate remedies locally.

December 15–22.—No material change occurred for some days. From the second day after admission it was obvious that neither professional skill nor the "vis medicatrix naturæ" could save the right foot. His left foot, however, rapidly recovered,—the injury being confined to the cuticle and the extremities of the toes.

The man's health was far from satisfactory. Bronchitis supervened, and afterwards an attack of conjunctivitis, which required the usual medicaments.

December 23.—The right foot being gangrenous and the line of demarcation properly defined, it only remained to determine what operation should be performed in order to make the most useful limb. Chopart's was precluded, owing to the impossibility of obtaining sufficient flap from the plantar surface; and the choice seemed to rest between Syme's and Pirogoff's. The latter was selected.

December 23—noon.—Performed "Pirogoff's modification of Syme's operation at the ankle-joint,"—amputating right foot. The customary incisions were made, and the bones divided and separated in the usual way. Only one vessel—the anterior tibial artery—needed ligation. Water-dressing was laid along the wound, and a few turns of a roller-bandage over all.

It would occupy too much space to repeat the daily treatment of this soldier. He had a mild attack of traumatic fever on the second day. On the fourth day the stump was dressed, and a three per cent. aqueous solution of carbolic acid applied. The leg was elevated, and no covering put on the stump except a piece of linen saturated in the acid and kept constantly moist with it. On several occasions he suffered from rigors, and a tendency to collections of pus in the sheaths of the tendons on the inner side of the right leg, as often happens after this operation. Prompt attention relieved this, by giving the discharge free exit as it accumulated.

On January 14 he was able to move about the ward on crutches; the incision of stump almost healed over.

At this date, February 20, 1872, he has been perfectly well for some time, and has a remarkably healthy stump. He can bear the entire weight of his body on it and walk, only using a cane. There is much less shortening than usual; his right leg is barely half an inch shorter than his left.

A CASE OF RETROVERSION OF THE UTERUS;

WITH CONVULSIONS, PARALYSIS, LOSS OF POWER OF ARTICULATION, ETC.—RECOVERY.

BY RICHARD THOMAS, M.D.,
Philadelphia, Pa.

MISS B., aged 34, an invalid, residing in this State, was, in the latter part of July, 1871, brought to this city. After resting a brief period, she was taken to the sea-side, where it was hoped her condition would be improved, or at least an opportunity would be afforded her of experiencing such benefit as might reasonably be expected from change of scene, invigorating air, and salt-water bathing.

Upon her arrival at the sea-side she became the patient of a medical gentleman from this city, and remained in his charge until August 10, when I was called in consultation. At this time I found the patient in bed, extremely emaciated, semi-conscious, speechless, making a peculiar unpleasant sound as she made vain attempts to reply to our questions. The arm and leg of the right side were paralyzed,—retaining sensation, however, and their normal temperature. I observed her closely; at times her position was one of apparent collapse, but generally she displayed great nervous excitement, moving the head from side to side. She had an anxious expression,—at one time pale, at other times flushed. She carried her left hand frequently, in an automatic manner, to her head,—evidently endeavoring to relieve some distressing sensation there.

Her pulse, which showed considerable debility, was still, under the circumstances, very good: being about 76, regular, and calm. The temperature of the body seemed quite normal. The urine was dark in color, of a pungent odor, and scanty. The bowels, I was informed, had been obstinately constipated for some days.

From the gentleman in charge of the case, I learned that he thought the symptoms depended on an organic disease of the brain and spinal cord. His treatment had been directed towards lessening the brain-excitement, as well as towards removing apparent congestion of that organ. He had endeavored to build up the general health, and to overcome constipation. With these ends in view, cold applications had constantly been made to the head. He had also given his patient a rich diet of oysters, puddings, eggs, brandy, and milk-punch, and had ordered daily drinking of sea-water, to assist the bowels to perform their proper function. After ten or twelve days thus pursued, the patient gave evidence of slightly-increased tone, and her friends had apparently some grounds for congratulation; but, just as a feeling of hope began to be entertained by all, she one day exclaimed, "Oh, dear!" and was seized with convulsions, which lasted, without any positive intermission, for twenty-four hours. It was when she had just emerged from this terrible condition of spasm that I was called to see her.

I will briefly narrate her history before coming to Philadelphia in July, 1871, as given me by a member of her family, whose intelligence and interest in our patient's welfare make her a reliable authority. It was as follows: Since the year 1866 there had been considerable difficulty in menstruation. Pain had been generally present during all this time; particularly was this the case in the sacral region. There had been much general distress,—pain in the head, vertigo, general restlessness, etc. All these symptoms were augmented at each menstrual period. Constipation, of a very obstinate character, was frequently experienced. About the year 1870 her general health began to decline rapidly, and menstruation—which, although attended with much irregularity, had still been performed—ceased entirely in August of that year, and did not reappear. During the following months of September and October she was in great distress, the symptoms mentioned being greatly aggravated; and during the latter part of October she was suddenly seized with convulsions, lasting some hours. For two weeks following this attack she was greatly prostrated, entirely speechless, and had frequent "tremblings" and great "nervous agitation." The bowels at this period were not moved for several days at a time. "The urine was thick and black." After a time she gradually improved in some particulars; but, for ten months following her first convulsive attack, she experienced every three weeks similar seizures.

She had received medical attention in her native place: such attention being chiefly directed to the head and spine,—it being the impression that there existed structural changes in both brain and spinal cord. Ice had been applied to the head, and blisters to the spine. Tonics had been given to improve the general health.

Efforts were made to relieve the bowels, whose remarkable constipation seemed very singular, and not to be easily overcome.

I gleaned enough from the foregoing history to justify me in suspecting some aggravated form of uterine difficulty; and upon my second visit to her I made a vaginal examination, using a speculum. Such an examination, I learned, had never before been made or suggested. The vagina and appendages appeared entirely natural, save at the upper portion, where the vagina was of a dark-red color and was bathed in pus. The os uteri was detected high up behind the pubes, quite swollen, dark red in color, and covered with ulcerations. A fissure, an inch or more in length, extended from the left internal margin of the os into the body of the cervix. The body of the womb was felt through the rectum, low down, and beyond the tumor thus formed the finger was passed, by using some considerable pressure. When the finger was partially withdrawn, the womb could be felt resting firmly on the bowel. The sound was readily introduced into the cavity of the womb, but it passed in with its curve directed *downward and backward*. The whole organ was extremely sensitive, and apparently congested.

Entirely satisfied that this condition of complete retroversion was the cause of all our unhappy patient's trouble, I proceeded to restore the womb to its normal position. This was accomplished far more readily than I could have hoped. The moment I reversed the position of the sound, an attempt at defecation was made, and there escaped from the rectum a considerable quantity of gas. After some five minutes, during which time the sound was held firmly, fixing the womb in position, it was withdrawn, and I was rewarded by finding that the os had not resumed its old foreign position, neither did the fundus impinge on the bowel.

The suffering of our patient was in a few hours afterwards greatly alleviated; much of her habitual restlessness and pain in the head had disappeared, and she gave unmistakable signs of being generally more comfortable. Still, the picture she presented was a sad one indeed: she was speechless and paralyzed, while her countenance betrayed the absence of her wonted mental power. Two days following the replacement of the womb the bowels were moved twice, naturally. I now ordered her fruit, mush made from unbolted meal, and cream. Of these articles she partook sparingly during the next two weeks, when she was allowed to indulge more freely, but without any change in diet. She was allowed no tea or coffee; stimulants were also strictly withheld, as well as any medicine containing alcohol, since it was found that even the smallest quantity of stimulant caused flushing of the skin, restlessness, and vertigo. As soon as the patient was strong enough to be moved, hip-baths of warm water were made use of,—generally once a day: these baths acting like a charm in soothing the general system, relieving the head, and inducing sleep. At the expiration of two weeks she was able to sit up in bed, leaning on the shoulder of her nurse; and at this time she gave many welcome indications of returning interest in affairs going on about her. She had become calm, did not complain, and her strength increased daily; indeed, in many ways giving unmistakable evidence of recovery. Somewhat later, the power of articulation returned in a degree. She was now able to pronounce some few short words, as "Yes," "No," "Doctor," etc., but could not connect any two words; nor could she spell a word of more than six letters, and that only in a slow, deliberate manner, often utterly failing to pronounce it at its termination. She was unable, at this time, to keep her eyes fixed on a newspaper more than a few seconds at a time, owing to nervous agitation which such an effort invariably induced. The right arm and leg unchanged. Her sleeping also began to improve about the second week; it was tranquil, and of some hours in duration. Her bowels continued to act regularly every day, naturally.

At the end of August I returned to this city, whither Miss B. followed in a day or so, when my treatment of her case was resumed,—it now having passed entirely into my hands. Her diet remained unchanged, save the addition of a few trifling delicacies of a mild character. By October 1 she had improved in many respects: appetite good; sleep uninterrupted during the whole night, lying upon her side,—which position it had been impossible for her to assume for more than two years; no pain of importance; head tolerably free from unpleasant sensations; bowels still regular; urine normal.

October 13, *menstruation*, after an absence of ten months, *was resumed*, and up to the present time has been regularly and perfectly performed.

Now began rapid changes. Every symptom improved; so that by January 1, 1872, the rigid contractions of the right arm and leg had perceptibly disappeared,—the muscles gradually regaining their natural condition and coming under the control of the will. With some slight assistance, the patient was able to walk the length of her room. I encouraged this exercise, and had the satisfaction of seeing it followed by increased general strength.

The paralysis of the right arm and leg was of the hysterical type, as will be seen from the following facts. During sleep, the paralyzed limbs were observed to be moved with much freedom. This was particularly the case with the arm, which the patient used frequently to remove flies or mosquitoes alighting on her face; the leg was drawn up, or extended. But when awake, if an attempt was made to flex or extend the arm or leg, there ensued a rigid contraction of the muscles concerned in these movements, making it nearly impossible to accomplish. This resistance invariably occurred, during the earlier part of her treatment, if her mind was occupied with the manipulation; but when her attention was otherwise directed, I was able to make flexion and extension readily. The sensitiveness of both arm and leg remained perfect. In short, the muscles had lost none of their power to act, but they were not subject to the will,—were under no control, save that of a perverted condition of the general nervous system, which allowed those inharmonious tendencies so often observed in hysterical affections the result of reflex irritation.

About January 1 she also gradually improved in reading, being able to read the correspondence of her friends with some degree of satisfaction. Letters six and eight pages long were read without any great difficulty, and in a tolerably well-pronounced manner. Printed matter she was unable, at this time, to read at all,—strange though it may appear.

The pulse throughout her entire illness, while under treatment by me, seldom varied: being, on an average, 75 to 80; never higher than 82, nor lower than 70. The approach of the menstrual period, since its resumption in October, 1871, has been marked by some slight flushing and restlessness; but its actual performance is unaccompanied by any other than perfectly natural phenomena. The voice has lost its unpleasant nasal character, and her expression of countenance has become bright, intelligent, and cheerful.

At the date of writing, she enjoys good health, has no pain, has a good appetite, sleeps well, walks without assistance, is regaining the use of her arm, converses well, and menstruates regularly. She has not had a single convulsion since I first saw her, and her weight, which in August, 1871, was 90 pounds, has increased to 120 pounds.

The treatment pursued in this case has been simple,—unmarked by much change. It was as follows: From

August 15 to October 20 (1871), injections were made into the cavity of the womb daily for the first two weeks, solutions of nitrate of silver being used,—five grains to the ounce of cold water; every other day for the two weeks following, the strength of the solution being increased to ten grains. For the remainder of the period mentioned the injections were made every three days, with a solution of nitrate of silver, twenty grains to the ounce. During the last week, tannic acid—three grains to the ounce—was substituted for the silver. The ulceration of the os and fissure of the cervix rapidly disappeared, under repeated applications of the solid stick of nitrate of silver. Frequently, during the first two weeks, large foul-looking sloughs of a dark-greenish color, streaked with blood, came away by the force of the injections, which were made with one of Mattson's syringes, through a double fenestrated catheter.

These injections of the cavity and applications to the os had the effect of reducing the size of the womb, also relieving pain and tenderness. Their employment was followed by so much improvement that at the time mentioned they were discontinued, as I deemed their use no longer indicated. In this conclusion I was justified, also, by the very important fact that the womb was retained in good position. No instrumental measures were made use of to effect this retention, other than the frequent introduction of the sound.

The constitutional treatment consisted of decoctions of the root of Cimicifuga racemosa (black snake-root) and Cunila mariana (American dittany), in equal parts combined. I used decoctions in order to dispense with any stimulant which might have been present in other forms of administration. This decoction was frequently made, and given, for the first five months, three times daily; the dose being a wineglassful, gradually increased to three times that quantity. This remedy acted like a charm, allaying pain and nervous excitement. Its effect was also antispasmodic,—which I attribute to the dittany,—while its general tonic effect was marked. Iron, quinia, pil. ferri carb.,—the latter combined with ext. conii,—were given in the order set down. At this date I am giving a simple preparation of iron as a general tonic.

Throughout the entire period of her treatment by me, Miss B. has not taken a drop of alcoholic stimulant.

16 N. Eleventh St., March 1, 1872.

PRIMARY CANCER OF BLADDER.

BY JOHN ASHHURST, Jr., M.D.,

Surgeon to the Episcopal Hospital; Surgeon to the Children's Hospital, etc.

Read before the Pathological Society of Philadelphia, March 14, 1872.

Patrick L., an Irishman, 45 years of age, and by occupation an engineer, was admitted to the Episcopal Hospital on January 22, 1872. For seven months his health had been gradually failing, his principal annoyance being from painful and frequent micturition, and from attacks of spasmodic cramp in the lower part of the belly; the spasms coming on very suddenly, and, as he expressed it, forcing him to "double himself up" by the violence of the pain. About five weeks before his entrance to the hospital he had noticed the presence of a hard mass in the supra-pubic region, but he had continued to work almost if not quite up to the date of his admission. He coughed somewhat; but this he attributed to a catarrh, which he supposed he had caught during the prevailing bad weather.

Upon examination, the patient was found to be a man of strong frame, and fairly well nourished. A hard tumor was readily felt above the pubes, and, by means of the finger in the rectum, was recognized as a cancerous mass encircling the urinary bladder. The prostate was not markedly enlarged, and the rectum itself appeared healthy. A catheter was introduced, and a small quantity of urine evacuated, showing that the cavity of the bladder was contracted, and that there was no retention. No hemorrhage followed the withdrawal of the instrument. There was slight dulness on percussion over the posterior part of the chest, especially on the left side, and there was a corresponding deficiency of the respiratory murmur. The parietes of the abdomen were at this time freely movable over the vesical tumor.

The treatment, of course, was merely palliative, consisting chiefly in the use of opium suppositories, the exhibition of iron and quinia, and the administration of as much easily-digestible food as the patient could assimilate, with a moderate amount of alcoholic stimulus. An occasional dose of an anodyne and expectorant mixture served to allay the cough when it was more than ordinarily troublesome. From the time of the patient's admission until that of his death (a period of nearly six weeks), he suffered, according to his own statements made in answer to repeated inquiries, absolutely no pain; the cramp-like spasms disappeared, doubtless under the influence of rest, and, except for a feeling of extreme prostration and debility, the patient's state, as regarded his own sensations, was in no degree one of discomfort.

For the first fortnight there was no decided change in the patient's condition, but from this time his strength rapidly failed. He became exceedingly emaciated; the so-called cancerous cachexia was developed in a marked degree; he became fatuous, and ultimately delirious (always, however, answering when spoken to, and constantly averring that he felt no pain), and, during the last periods of his life, presented an extremely pitiable appearance—continually soiling his beard and pillows with his expectoration, and passing both urine and feces involuntarily in his bed. In fact, his urine ultimately dribbled from him all the time,—the cancerous growth appearing to have so fixed the neck of the bladder as to prevent its retaining its contents. At no time did he pass any blood, either by the urethra or by the rectum, but his stools contained large quantities of fetid mucus. The abdominal parietes became adherent to the tumor some weeks before his death, which ensued, apparently from pure exhaustion, on the evening of March 2.

A post-mortem inspection was made two days subsequently, the thoracic and abdominal viscera being alone examined. The original seat of disease was found to have been in the walls of the bladder, which were infiltrated with cancerous material, the neoplasm having also invaded the abdominal parietes, and having involved in its growth the rectum and several coils of the lesser bowel, though it did not seem to have implicated either the intestinal or the vesical mucous membrane. The cavity of the bladder was found, as had been anticipated, much contracted. The kidneys were large and their pelves much dilated, as were the ureters. The liver presented the appearance known as "nutmeg liver," while the spleen and other abdominal organs seemed healthy. Both lungs, but especially the left, contained numerous deposits of a material which in its naked-eye appearances resembled the vesical growth, but which, as will be seen by the report of the microscopic examination,* was of a non-cancerous nature. Both pleural cavities were the seat of old and quite firm adhesions. The heart was fatty, but seemed in other respects free from disease.

Remarks.—Apart from the rarity of cancer of the bladder occurring as a primary affection, this case presents several features of interest both clinically and pathologically.

(1) The absence of pain during the latter stages of the affection, and the entire freedom from hæmaturia, are both unusual, but are explained by the fact—revealed at the post-mortem examination—that there was no ulceration of the mucous surface of the bladder.

(2) The rapid development and great intensity of the so-called "cancerous cachexia," in connection with the occurrence of pulmonary disease which was not cancerous, are of interest, as illustrating the fact that this cachexia depends rather upon the implication of vital organs than upon the extent and duration of

* See Report of Committee on Morbid Growths, page 272.

cancer as a special form of new growth; the "cancerous cachexia" is not particularly well marked in cases of uncomplicated cancer of the bladder.

(3) The rapid course of the affection, and its early termination in death before the vesical growth had advanced to the stage of ulceration, were evidently owing to the condition of the lungs—the fatal issue being in fact due to pulmonary disease, and not to vesical cancer.

ON THE SWALLOWING OF INSOLUBLE FOREIGN BODIES BY CHILDREN.

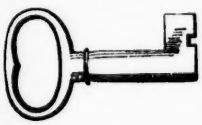
WITH TWO CASES.

BY JOHN H. PACKARD, M.D.,
Philadelphia, Pa.

NOTWITHSTANDING the apparently great risk of impaction of the coins, pins, or other insoluble bodies so often swallowed by children, it is very seldom that any serious trouble occurs; probably because the thick mucus lining the intestinal canal, and the accumulation of fecal matter around the foreign body, prevent the latter from becoming entangled, and bear it on with them until it is expelled per anum.

I feel the less called upon to apologize for reporting the following cases, since quite recently the subject was deemed important enough to be discussed in several communications to one of the leading London journals; the exact reference has unfortunately escaped me.

Case I.—September 5, 1868, a child of Mr. S., æt. four months, swallowed an iron box-key, of which the annexed cut is an accurate outline. It was one and three-sixteenths of an inch long, and five-eighths of an inch wide. Before coming to me, the mother had given the child a teaspoonful of castor oil. I advised letting him alone and watching the evacuations. (They had already begun feeding the child, young as he was, with bread and milk.)



September 7.—At about 8 A.M. the child had a large passage, and the key came away easily, forty-eight hours from the time it was swallowed.

Case II.—January 19, 1872, Mr. V.'s child, æt. ten months, was much troubled by the irritation of a tooth just coming through. The mother was rubbing the gums with a silver safety-pin of the exact shape and size shown in the cut, when

it suddenly slipped into the pharynx and was swallowed. A dose of oil was immediately given, and next day the father came to me. I advised the same course as in the last case; and on the 29th, ten days after the pin had disappeared, it was voided by the anus.

The first idea that occurs to the popular mind in such cases always is to give a purgative. The disadvantage of this course, however, in stimulating the bowel to contraction and thereby endangering the entanglement of the foreign body, must be at once evident, and is pointed out by Cooper Forster, Holmes, and others. If the child is old enough to eat, the food given should be such as to produce a large fecal formation.

Several years ago, while visiting a patient, I was called into the next house to see a child who was said to have swallowed a nickel cent. A few days afterwards, inquiring how the child was, I was told that after I had gone away the coin had been found on the floor. The child had dropped it instead of swallowing it.

A CASE OF MOST EXTENSIVE PERICARDIAL ADHESION,

WITH OTHER CARDIAC LESIONS.

BY W. H. WEBB, M.D.

I OFFER the following interesting case to the notice of the profession. Pericardial adhesions in a lesser degree are not uncommonly met with post mortem, but I feel assured that the case I now report is unique in many of its features.

Anderson S., ten years of age, was a bright, intelligent lad, well grown, but emaciated in body and limbs, having been an invalid all his life.

The following history of his infancy and childhood has been furnished me by his parents. At six months of age he had marasmus, from which he recovered after about three months' illness,—remaining comparatively well three years, when he was attacked with atony of the bowels. This was soon followed by bilious fever of four or five weeks' duration. Between this time and his fifth year he had chicken-pox, measles, and hooping-cough. After his fifth year he had an attack of mumps; afterwards he was troubled with headache, which was very severe in character. When about six years of age he had rheumatism for the first time. In the spring of his seventh year he had scarlet fever, which confined him to his room for five weeks. In the summer of the same year he was seized with rheumatism, and, being in the country at the time and under the care of a very attentive nurse, he speedily regained his usual health. Occasionally, since the attack last referred to, he has had repeated though slight attacks of rheumatism, and in the spring of 1871 he was violently attacked with the same disease, which was followed by typhoid pneumonia.

I was first called to see the lad in the spring of 1871; he was then suffering from his old enemy—rheumatism. On a physical examination of the chest I found so large an area of cardiac dulness, accompanied with mitral regurgitation, that I looked upon the case as a medical curiosity; and, on showing the little patient to my friend Dr. DaCosta, he remarked that such extensive cardiac lesions were rarely met with in so young a child. I prescribed for him, but, he being unwilling to take the medicine, I withdrew from the case, and he was then placed under the no-treatment of homœopathic practitioners; and, notwithstanding he had been in their hands all his life up to the time I took charge of him, the cardiac lesion, which no doubt had existed for a long while, had never been recognized.

I was called again to see the little fellow January 30, 1872, for his "heart-trouble." He labored under the most intense dyspnœa, being obliged to assume the semi-recumbent position to facilitate breathing. His respirations were 54 per minute; his pulse 130, full and jerking; tongue slightly coated; anorexia; bowels constipated. Cardiac examination revealed two murmurs: one at apex and one at base. Percussion-dulness was four and a half inches at base and five and a half inches on a line drawn from mid-sternum at base to apex, which was two and a half inches below and to the left of left nipple. There was congestion of the lungs,—of the left more than the right,—with some mucous râles at left apex posteriorly. There was some cough, with slight expectoration, frothy and tenacious in character. There was no dropsy. *Urine free from albumen.* The abdominal veins were quite prominent, though not distended; jugular veins considerably enlarged, and pulsation in them quite perceptible. Indeed, the pulsation of the vessels of the neck was painful to witness,—the heart's action being so violent as to give motion to a large bedstead on which the little sufferer lay.

The child was somewhat relieved for a while under the administration of the most powerful cardiac sedatives, but finally succumbed on the morning of February 10.

Autopsy—in which I was kindly assisted by Dr. Beecher, forty hours after death.—Thoracic cavity only inspected. There was marked congestion of the lungs,—the left more than the right; in fact, the lower posterior portion resembled the second stage in a pneumonic lung. The adhesions in the left pleural cavity were very extensive and numerous; some

of long standing, while others seemed of more recent formation. The right lung had several old adhesions, with some serous effusion in the cavity.

The heart was of enormous size, weighing at least one pound and a half. The pericardium, which was much thickened, was adherent throughout, and it was impossible to separate the smallest portion without laceration of the heart-tissue. The muscular walls of the ventricles, especially of the left, were very thick. The cavities of the heart were dilated. A large yellow heart-clot about the size of a small walnut was found in the right auricle; some of the prolongations were lost between the musculi pectinati of the auricle, while others extended through the tricuspid orifice and were lost between the columnæ carneæ and chordæ tendineæ of the ventricle. In the left ventricle also existed a large clot, somewhat flattened and entangled in the columnæ carneæ; a prolongation of this clot extended through into the aorta as far as the left subclavian artery. This seemed to be fibrinous in character, and both gave evidence of having existed for a considerable time. All the valves were opaque, thickened, and slightly nodulated. The aortic valves particularly presented these features, being quite stiff and the margins curled inwards towards the sinuses of Valsalva,—the leaflets not being able to form perfect closure in consequence.

The aorta above the valves was much dilated, and on the posterior part encrusted with atheromatous deposits, giving the appearance met with in an aged person.

With such a multiplicity of disease of this all-important organ, the query is, How did this little patient live? and not, Why did he die?

NOTES OF HOSPITAL PRACTICE.

WILLS OPHTHALMIC HOSPITAL.

SERVICE OF GEORGE C. HARLAN, M.D.

Reported by CHARLES K. MILLS, M.D.

SYPHILITIC IRITIS.

E. L., æt. 22, seven months before coming to the hospital had first been troubled with sore throat. She stated that her tonsils had been lanced, and portions of them excised, a number of times. On examination, her throat was found to be in a granular condition, and the right tonsil deeply ulcerated. About one month after her throat became affected, an eruption appeared on her face, shoulders, and arms, the remains of which, copper-colored, indicated its syphilitic nature. Still later her joints had become stiff, swollen, and painful, and nodes formed on the spines of the tibiæ; she was sleepless, had no appetite, and suffered almost constantly from nausea and vomiting, and neuralgic pains.

Ten weeks before her first appearance at the clinic, her eyes had commenced to inflame; and, when first seen, each eye presented the appearances of severe iritis. Atropia had fortunately been used.

The pupillary margins of both irides were much thickened. Posterior adhesions had formed in several distinct points. The pupil of the left eye was dilated, and had much the shape of the conventional five-pointed star. The pupil of the right eye was also irregularly dilated, but not to so marked a degree as the other.

In this case the tuberculous nodules, or gummata of Virchow, were beautifully shown. Three of these, very vascular, and of a yellowish-red color, were projected from the front surface of the left iris into the anterior chamber. One of them, of a yellowish hue, was situated on the anterior surface of the right iris, at its lower part.

A punctated opacity overspread about one-half of both corneæ, which were surrounded by distinct vascular zones, most prominent near the gummata. No marked conjunctivitis was present.

Vision in the left eye equalled only $\frac{5}{CC}$, and in the right but $\frac{10}{CC}$.

Atropia was prescribed for the eyes, and mercurial inunction ordered.

CORNEITIS FOLLOWING SMALLPOX.

N. F., æt. 9, had recently recovered from an attack of smallpox, of the discrete variety, but severe, as indicated by the pitting of his face and body. Before this sickness his eyes were sound. He stated also that they were not very troublesome during his illness, but as he got better the eyelids were slightly adherent. He was not aware, however, of any marked bad effects, until two weeks after he was able to be out of bed, while the crusts were still falling off; when the left eye became inflamed and painful, gradually getting worse until the time of applying for treatment, two weeks later.

The cornea of the affected eye was slightly hazy over its whole surface, and a broad sloughing phlyctenula extended from near the base of the cornea to within about two lines of its centre, the phlyctenula being connected by a leash of vessels with the conjunctiva, which was much engorged. Vision in this eye was $\frac{10}{C}$.

He was immediately placed upon tonics, and atropia was instilled and calomel insufflated into the eye. After three weeks under this treatment, the patient returning to the clinic every other day, the cornea had cleared up, the conjunctivitis had subsided, and the phlyctenula had almost disappeared.

SEVERE INJURY OF THE CORNEA.

P. M., æt. 60, a laborer, pressed a small piece of coal into his eye while washing his face. Three days afterwards, when admitted to the hospital, the eye was terribly inflamed and painful. He had little appetite, and was weak, sleepless, and feverish. The coal had penetrated the cornea and lodged between its layers, where a slough had formed, which extended rapidly. The conjunctiva was highly congested. No corneal vessels could be made out.

He was put to bed, and kept there for ten days; a strong solution of atropia was daily instilled; the artificial leech was applied for three nights in succession, and hot-water cloths for a week.

Paracentesis of the cornea was now resorted to, but, having proved ineffectual, an incision about 4‴ long was made in the cornea with a Gräfe cataract-knife, and a large slough removed from between the layers.

The sloughing was checked at once. Four weeks after admission the eye was much improved, the pain and inflammation gone, and the patient's general health restored. He could count fingers at one foot. The uninjured eye never became sympathetically affected.

WOUND OF THE SCLEROTIC.

F. M., æt. 35, laborer in a saw-factory, two days before applying for treatment was struck in the left eye with a small splinter of steel, which had grazed the edge of the upper lid, and then made a vertical wound in the sclerotic, three lines long, and situated on the inner side of the eye, a little anterior to the equator of the ball. The vitreous protruded through the opening, and escaped freely on slight pressure. The patient experienced but little pain, and vision in the injured eye was not much affected. When first seen, the media were clear and the fundus normal.

The cut in the sclerotic was united by a single stitch, and the patient put to bed, with his eyes sealed up, for four days. Atropia was daily instilled.

At the time of his discharge,—about ten days after the injury,—when all inflammation had subsided, vision equalled $\frac{20}{LXX}$; and by the ophthalmoscope the vitreous was found to be hazy, and to contain floating shreds, the fundus being lighted up with much difficulty.

The patient continued to report at the dispensary-service, and the stitch was not removed from the sclerotic until three weeks after its introduction. At the time of its removal the fundus could be well illuminated, and the vitreous was found to be nearly cleared up, although there were still a few floating shreds to be seen. The patient complained of muscæ volitantes. The acuteness of vision was now normal: $V = \frac{20}{XX}$.

TWO CASES OF SYPHILITIC KERATITIS.

R. C., æt. 16, an errand-boy, presented himself at the clinic about the middle of February, 1872. Three years before, he

had been under Dr. Harlan's care, at which time he was for several weeks almost blind,—both corneæ being quite opaque, and his eyes much inflamed.

His parents both died when he was five years old; and he had been told that his mother died of paralysis, and his father of consumption. He never had any sisters, but had had two brothers, one of whom lived only one year, and the other ten years. On the death of his parents he was placed in a children's "Home," and while there he had three or four attacks of "sore eyes." He remained in this institution four years, when he was bound out to a farmer, with whom he continued until the time of his first coming under the notice of Dr. Harlan, three years since.

The lymphatic glands of his neck had been much swollen at different times. He had been deaf in his right ear as long as he could remember, and for six months the hearing of his left ear had been failing.

His physiognomy indicated hereditary syphilis. His complexion was dull, and the bridge of his nose was flattened and wide. His teeth were typical. The lower incisors were regular, but small and discolored. One of the upper incisors exhibited a broad notch; another, two small notches; the remaining two were small, and one of them peggy; all were irregularly set and discolored. Both corneæ were flattened, and showed a very slight haziness. The pupil of the right eye was slightly dilated, but movable; that of the left was much dilated, irregular, and immovable. No atropia had been used in his eyes for at least a year. His acuteness of vision for the right eye was $\frac{20}{L}$; for the left it was $\frac{20}{C}$.

Iodide of potassium had been prescribed for this patient before, and this treatment was now ordered to be renewed.

M. S., æt. 11, a school-girl, who came to the hospital March 18, was another case of interstitial keratitis, doubtless consequent on hereditary syphilis.

Her mother and father, both aged 41, were still living; and according to the statements of the girl's grandmother, who accompanied the child, the former had always been well, while the latter was never healthy, and had had several bad attacks of rheumatism. She had three brothers living and well; but nine other brothers and sisters had died before reaching the age of six years,—all having been "weakly" children; one was still-born.

She had been troubled with nasal catarrh, varying in severity, since quite an early age; and she had also been afflicted with large glandular swellings about the neck: one enlarged lymphatic gland was found on examination. For several years she had been affected, at intervals of two or three months, with a severe sore throat. Her voice was a little husky; and both tonsils and the pharynx were found to be ulcerated.

She had apparently sound eyes, and had enjoyed good sight until two weeks before appearing at the dispensary-service, when first her right eye, and, in a day or two, her left, began to inflame. The conjunctivæ were a little congested. Episcleral zones were evident around both corneæ, but this vascular band was most marked in the right eye. Both eyes were slightly intolerant of light, and a diffuse punctated opacity overspread both corneæ. Occasionally she had sharp pains in her eyes. Vision in the right eye equalled $\frac{10}{CC}$; in the left, $\frac{9}{C}$.

Her physiognomy and teeth were characteristic. The bridge of her nose was wide and sunken. Her lower teeth presented nothing typical; but the two central upper incisors had broad notches and were small, while the other teeth were misshapen and irregular. The upper front teeth were so placed, and varied so in size, as to give this part of the jaw a peculiar arched appearance.

Atropia was instilled, and she was ordered three grains of iodide of potassium three times daily, and a collyrium of biborate of soda in infusion of sassafras-pith. She is still under treatment.

A Parasitic Disease of the Tongue.—M. Raynaud has recorded a case (*Archives Générales*, January, 1872) in which he found spores upon the tongue, presenting a very great similarity to, if not identity with, those of the tricophyton tonsurans.

In a paper read before the Royal Medical and Chirurgical Society (*Lancet*, February 24, 1872), Dr. Broadbent advances a theory of the mechanism of thought, founded partly on his own researches into the structure of the brain, and partly on the phenomena observed in cases of so-called aphasia; and his views may thus be briefly stated: In regard to structure, he believes his dissections demonstrate that the radiating fibres issuing from the central ganglia are chiefly if not exclusively distributed to the convolutions forming the margin of the great longitudinal fissure and those forming the margin of the fissure of Sylvius, and the parts adjacent both in front and behind; that the fibres of the corpus callosum are distributed to these same convolutions; that there are convolutions, as those on the under-surface of the temporo-sphenoid and orbital lobes, island of Reil, and others on the convex surface, which have no direct connection with either crus, central ganglia, or corpus callosum; and, lastly, that there are fibres connecting different parts of the cortical gray substance. His theory in regard to the functional activity of these parts is based on that suggested by Dr. Bastian, and may thus be shortly given: Ideas or thoughts—the act of thinking—are the function of the highest centres, occupying those parts of the cerebral hemispheres which are thus withdrawn from the outer world. When such thoughts or ideas are required to be translated into language, impulses are transmitted through communicating medullary fibres to the third left frontal convolution, where they are formulated into speech, the words being selected that are adapted for the expression of the idea or phrase. But for the articulation of any given word many muscular groups must be called into play—as those of the chest, larynx, tongue, and lips. The co-ordination of muscles for this purpose is effected by the corpus striatum, in which certain groups of cells representing certain sounds or words exist. The business of the third left frontal convolution is to call into play the right cell-groups in the corpus striatum, which shall transmit to the nerve-nuclei in the medulla and cord the impulses requisite for the utterance of the words that it has itself selected as most appropriate for the expression of the idea existing in the supreme centres.

It is obvious that this theory enables an explanation to be given of many pathological phenomena. Dr. Broadbent, following Dr. Bastian, holds that there may be either paralysis or merely a want of co-ordinating power in each of these centres. In the case of the supreme centres, for instance, the lesion may be so serious as to lead to utter loss of the memory of ideas and of words as intellectual symbols, and the patient is then said to be amnesic; or there may be only a want of co-ordinating power,—a failure in the capability of selecting the words or phrases required to express a given idea. But the supreme centres may be undisturbed and free from disease, as shown by the retention of memory and the power of expressing ideas by some other mode, as by writing, and yet there may be loss or impairment of speech. In such case the third left frontal convolution is diseased. And here, again, the lesion may be so severe as to abolish its function of selecting words or phrases appropriate to the idea desired to be expressed, and thus produce aphasia; or its co-ordinating powers may alone be affected, and the impulses it sends down to the corpus striatum may be directed through wrong channels, exciting wrong cell-groups, and giving rise to the use of inappropriate words. In cases where the corpus striatum or the motor ganglia in the medulla are affected, aphasia is not present, but there is impairment of articulation; and thus in these several instances we obtain a key to what otherwise are very puzzling groups of symptoms. We have not space to do more than refer to Dr. Broadbent's suggestion of the storing up of force in certain cells, but cordially recommend the whole paper to our readers for perusal.

A Test for Sugar.—Professor Seegen says (*Wiener Medizinische Presse*, February 25, 1872) that very small quantities of sugar may be detected in saccharine urine, if the latter be first filtered through animal charcoal. This retains the uric acid, which reduces the oxide of copper, and certain other of the constituents of the urine, which interfere with the reaction in Trommer's test. The reaction will be obtained even more distinctly if, after the urine is filtered, the charcoal be washed and the wash-water be tested for sugar.

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EDITORIAL.

THE REPORT OF THE MUNICIPAL HOSPITAL.

THE report of Dr. Welch, the physician in charge of the Municipal Hospital, for the year 1871, has just been published. It contains many facts of interest, some of which we propose to lay before our readers. It will be remembered that until the month of August there had been no reason to believe that smallpox was about to become epidemic in this city. At that time, however, a very considerable increase in the number of cases of the disease reported to the Board of Health was observed. During the following months a still more rapid increase was noted, until about the beginning of the year, when the epidemic attained its height. Since then there has been a gradual diminution of the number of cases and a decline in the severity of the disease; and we have reasonable grounds for hope that we shall soon be able to announce the final disappearance of the scourge.

Dr. Welch regrets the necessity for making his report while the epidemic is still prevailing, and before he has had time to revise and to analyze all the notes in his possession. Unquestionably, if more time had been given to him, he could have prepared a still more valuable report,—and we see no reason why this should not be done later; but there are facts enough of interest in his paper to warrant its publication at the present time, and we feel sure that had it appeared earlier it might have been the means of saving many lives, for it contains conclusive evidence to every candid mind of the protective power of vaccination and of revaccination.

The whole number of smallpox patients under treatment during the year 1871 at the Municipal Hospital was 1227, and of this number 361, or 29.42 per cent., died,—a very large mortality, and one which shows that not only is the epidemic a malignant one, but, as it exceeded the general mortality in the city, that the cases sent to the hospital were of unusual severity. We find, as we should expect, that the percentage of deaths among the unvaccinated is exceedingly large. Thus, of 390 such patients, 254, or 65.12 per cent., perished; while the mortality among the vaccinated was only 16 per cent., and, if we take only those who had a well-marked cicatrix of the vaccine disease, only 9.93 per cent. Twelve infants under the age of one year were admitted, and of these, ten, or 83.33 per cent., died. The cause of this great mortality is, however, not wholly attributable to the age; for we find that seven of these twelve had never been vaccinated, and that three of the remaining five had been vaccinated within a week of the appearance of the eruption, and after exposure to the contagion. Of the other two, one had been vaccinated seven days before the appearance of the eruption, and after exposure to the contagion of smallpox, and the other eight days before its appearance. It will be seen from this that no child under a year old has been admitted into the hospital in whom the vaccine disease had fully run its course and who may therefore be fairly supposed to have been under its protecting influence; and we doubt whether a single such case has been under treatment in the city. Is any stronger argument than this needed to convince the opponents of vaccination of its protective power, or to induce our State Legislature to enact such laws as will remove children from the control, in this respect, of those who blindly and stupidly oppose themselves to the results of experience? We have pointed out in a former editorial that, where proper care is exercised in the selection of virus, the danger that vaccination may be the means of transmitting other constitutional diseases is infinitesimally small, and, in view of the fact that there are few authentic cases of this kind on record, is not worthy to be weighed against the benefits which the operation confers.

The report confirms the general impression that the protection afforded by vaccination is inversely as the length of time which has elapsed since the operation was performed, and bears most overwhelming testimony in favor of revaccination. Only fourteen out of the 1227 patients admitted to the hospital had been revaccinated, and in five only of these had the operation been performed a short time before the occurrence of the disease, and in only two before exposure.

Fourteen of the patients claimed to have had either smallpox or varioloid at a prior period of life; and many of these presented the cicatrices left by former attacks of the disease. This is, of course, simply conformable to the general experience of physicians,—that one attack of variola does not always protect against a second, and that the protection afforded by it is not comparable to that afforded by recent vaccination. This is a point which it is important to bring to the notice of the community,—for we are aware that much misapprehension prevails, even among intelligent people, concerning it.

The experience of Dr. Welch in regard to the influence which variola exercises upon pregnancy agrees with that of most physicians who have had frequent opportunities for observing the disease. He says, "We may safely conclude that, when smallpox is complicated with pregnancy, the danger from the disease is increased; that abortion is liable to occur; and that, when it occurs in the early stage of the disease, peril to life is imminent." The women who aborted during the stage of desquamation, however, all recovered; and

those who were delivered at term in the hospital also did well.

There are some useful lessons to be learned from this report. For instance, Dr. Welch says, "In our tables we have found the percentage of deaths among our post-vaccinal cases to be 16 per cent. Let us suppose, then, that the three hundred and ninety unvaccinated cases had been vaccinated in infancy: instead of having two hundred and fifty-four deaths, they would have been reduced to sixty-two,—a saving of one hundred and ninety-two lives by vaccination. Again, let us suppose that all who were admitted during the year had been thoroughly vaccinated in infancy, and good cicatrices had been secured: instead, then, of having three hundred and eighty-two deaths, as appear in the table, we would have had only one hundred and eighteen,—a saving of two hundred and sixty-four lives." Applying the same reasoning to the cases that occurred in the city, Dr. Welch finds that, had all our citizens been protected by vaccination, there would have been only 370 deaths instead of 1879, or a saving of 1509 lives to the community,—a large number to fall victims to this most preventible of all contagious diseases, either as self-made martyrs, or through the self-sufficiency of their friends.

There are other arguments in favor of vaccination which are not alluded to in Dr. Welch's report, and yet we think that they appropriately find a place here. We will assume that it is conceded by all that no class in the community is more constantly exposed to the contagion of smallpox than physicians; and yet we venture to say that cases of the disease have been rare among them, and that deaths from it have been still more infrequent. This immunity is due, of course, to the fact that every physician has been careful to protect himself by vaccination and by revaccination. Physicians have in times past, during epidemics of other diseases, paid with their lives for the devotion they have manifested towards their patients; and yet, while during the whole winter they have freely exposed themselves to one of the most virulent of all contagions, they have almost escaped unscathed. They have sought to extend the same protection to their patients, but they have too often been foiled by the "intelligent objections" which have been advanced against vaccination; and the result has been the frightful mortality which has taken place during the last few months.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY, MARCH 14, 1872.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. J. M. BARTON presented specimens of *cancer of the pancreas and of the pylorus; calcareous deposit in pulmonary, aortic, and mitral valves;* and read the following history:

Mrs. A. W., 74 years of age, was in good health until last June, when she had an attack of vomiting, produced apparently by acute indigestion, and which readily yielded to treatment.

She remained well until the early part of February, when she again suffered from an attack apparently similar, and which also yielded in a few days. I noticed at this time great irregularity of the pulse, both in force and frequency, but found nothing in the cardiac sounds to account for this condition.

On the 12th I was sent for in consequence of a recurrence of the vomiting, and found a tumor, about the size of a walnut, two inches to the left of the umbilicus,—sharply defined but irregular in outline, tender on pressure, immovable, and dull on percussion. It was occasionally the seat of a sharp pain. The liver was enlarged and lower than natural, but still quite distant from the tumor. The splenic dulness was quite limited, and in its natural position.

From the 14th to the 28th the patient was in a very depressed condition, but was able to take large quantities of stimulants and of liquid nourishment. The bowels were regular, but the urine was deficient and high-colored. On the 19th some œdema of the limbs was noticed; the urine was examined, and some albumen was found. There was no pleural and no peritoneal effusion. The tumor had gradually increased in size to about double that before noted, but its outline was less sharply defined. There was no jaundice.

On the 28th vomiting returned, and was never entirely controlled. It took place immediately on the administration of food or stimulants, and only then. When food was administered in teaspoonful-doses it was retained until the quantity reached about f℥i, when it was rejected.

Autopsy.—March 13; twenty-four hours after death. The liver was found cirrhosed and displaced; the gall-bladder distended. The stomach was healthy, except the pyloric extremity. The pyloric orifice is nearly closed by a small hard tumor, so that a probe passes through it with difficulty.

The tumor in the umbilical region was found to be the pancreas, displaced, and the seat of a growth of scirrhous consistence. Nearly the whole of the organ is involved, only a small portion of the splenic extremity being free. It had contracted strong adhesions to the surrounding structures, and was removed with difficulty. The growth in the stomach was quite separate from that of the pancreas; there were not even adhesions between them.

The lungs were healthy; there was some pleural effusion. The heart was large and flabby, the muscular structure being rather pale. The semilunar valves both of the aorta and of the pulmonary artery were the seat of calcareous deposits, as well as the mitral valves.

The specimens were referred to the Committee on Morbid Growths, who reported as follows:

"Your committee believe the specimen presented by Dr. Barton to be a scirrhous cancer of the pylorus, presenting the usual microscopic characters. They failed, however, to find any trace of the disease in the pancreas."

Dr. PACKARD exhibited specimens of *cancer of the liver and peritoneum*, with the following history:

Mr. M., æt. 66, of robust frame and excellent habits, was operated on by me on February 8 for hemorrhoids, from which he had suffered for thirty years. His symptoms—debility, flatulence, and intestinal irritation—were all seemingly referable to this cause; they were much relieved by the removal of the tumors, which was accomplished with the écraseur,—one small internal one being tied. Still, he failed to gain strength, and, without any local symptom except epigastric tenderness, he finally sank on the 13th of March.

Autopsy twenty-three hours after death; Dr. C. B. Nancrede assisting.—The lungs and heart presented no abnormal appearances. On opening the abdomen, a profusion of soft and vascular cancerous deposits were observed in the omentum, suspensory ligament of the liver, mesentery, and parietal peritoneum. The intestines and stomach were singularly clean and healthy, except at one or two points on the outer surface of the latter, where button-like masses were seen. In the pelvis the adventitious deposit was enormous, forming a thick lining to the cavity, resembling a heavy growth of moss. Into this the rectum dipped, its clean shining serous surface curiously contrasting with the soft, vascular, irregularly-nodulated morbid growth. On the mesentery the deposit was in

innumerable little masses, varying from the minutest dot discernible with the naked eye to the size of a pea, and of all imaginable shapes. Everywhere, however, the button-like character was observable.

In the substance of the liver, which was markedly fatty, there were a large number of cheesy deposits.

The kidneys were much atrophied, pale, and fatty.

The specimens were referred to the Committee on Morbid Growths, who furnished the following report:

"The portion of liver presented by Dr. Packard exhibited a yellowish-white mass umbilicated at its centre, which, on microscopic examination, revealed the well-known structure of cancer. The cauliflower-like growth of the peritoneum was so fragile that it could scarcely be handled without tearing. Microscopic examination showed it to consist of numerous thin-walled blood-vessels and an exceedingly delicate connecting-tissue stroma,—the interspaces being covered with large epithelioid cells with well-marked ovoid nuclei."

Dr. S. W. Gross exhibited a rare specimen of *sarcoma of the tongue*,—which must have either been congenital, or appeared soon after birth,—removed from a delicate female child seven months old. The tumor, which was first noticed about five weeks previously on account of the impediment which it offered to sucking and even deglutition, occupied the back part of the tongue, from which, in its progress, it gradually extended forwards over its middle. It was of a firm, dense consistence, apparently free from pain, situated immediately beneath the mucous membrane, which retained its normal appearance, except that it presented a few large straggling veins over the most prominent portion of the tumor. The growth of the neoplasm had latterly been so rapid as to cause serious respiratory difficulty. After removal, which was effected by Professor Gross without hemorrhage, by evulsion with the index-finger, it was found to be smooth, elastic, ovoidal, bilobed, of the volume of an almond with its hull, interspersed with a few calcareous concretions, and composed, as determined by Dr. Bertolet and himself, of large oval and spindle cells, the latter of which had a fasciculated arrangement.

Examples of sarcoma of the tongue are very uncommon, the only recorded cases Dr. Gross has met with being that of a congenital cystic-sarcoma reported by Dr. Jacobi, of New York, and one alluded to by Sir James Paget in his Lectures on Surgical Pathology, under the head of fibro-cellular tumors. In the latter instance the growth had existed for three years on the substance of the tongue, near its apex, in a young man.

Dr. John Ashhurst, Jr., presented a specimen of *primary cancer of the walls of the bladder*. (See current number of this journal.)

The specimens were referred to the Committee on Morbid Growths, who reported as follows:

"The specimen presented by Dr. Ashhurst seems to have been a cancer of the bladder, which had caused a tolerably uniform thickening of the walls of that viscus with marked diminution of its cavity, without at any point breaking through the mucous membrane. The ureters were both patulous,—the right, however, being surrounded by the new growth, which had pushed itself into the recto-vesical cul-de-sac. Microscopically it had the characteristics of a fibrous carcinoma, densely-matted fibrillæ of connective tissue, with spindle-shaped cells, and small and unfrequent alveoli containing free cellular elements.

"The nodules in the lungs were evidently embolic infarcta, presenting their usual triangular shape (end towards the pleural surface). Some of the smaller patches had softened and formed abscesses; but the harder ones, in addition to the usual elements of lung-tissue, presented only compound granular corpuscles and young rounded cellular elements.

"It is a matter of regret that the veins of the pelvis were not carefully examined, since the nature of the lung-lesions would lead us to suspect that the new growth had eroded the walls of some large vein, and, projecting into its lumen, afforded an opportunity for the coagulation of portions of fibrin, which, by their subsequent detachment, had caused the embolism above described."

Dr. James Tyson presented, for Dr. Hale, a specimen of *aneurism of the aorta and enormous hypertrophy of the heart*, removed from T. R., æt. 42; white; male; married; intemperate; a seaman. Born in New York. Admitted to medical wards of Philadelphia Hospital February 24, 1872. He has no recollection of any illness in childhood. Fifteen years ago he had a very severe attack of acute articular rheumatism, from which he apparently recovered. Three years following the rheumatic attack he vomited and passed blood from the bowels, experiencing no pain. He has had four similar attacks since, at irregular intervals. The last attack occurred two months ago, since which time he has been short of breath, unable to exert himself, and could not rest well at night. During the last three weeks he has had little sleep, and has experienced a "tickling cutting pain" across the abdomen, coming in starts; also fluttering sensations about the præcordial region. His feet commenced to swell one week prior to admission.

His condition when first seen was that of a man in extreme distress: sitting up in the bed with an anxious expression, his lips were somewhat dusky; his hands purplish, and the veins of his forearms distended; his tongue was smooth, and mottled with red patches; pulse regular, of moderate force, 96 to the minute; breathing laborious; drowsy (he had not slept for ten days); chest large, fully developed; œdema of lower extremities and of genitals, but apparently no effusion into the abdomen. The patient complains of a "tickling pain" in the epigastrium. Stools infrequent; urine normal in quantity. Respiration was decidedly roughened, with prolonged bronchial expiration at base of right lung, where there was also slight dulness on percussion.

The left side of the chest was markedly prominent anteriorly, where there was also decidedly more movement. Above the clavicle on each side, pulsation of the carotid arteries was very marked; there was slight distention of the superficial veins in the same regions.

In the præcordial region the cardiac impulse was distinctly visible from the sternum to beyond the nipple. There was dulness on percussion from the third rib downward and from beyond the right edge of the sternum to beyond the left nipple. There was no impulse visible in the epigastrium. On the right edge of the sternum, at the level of the third rib, a loud but not rough double murmur was heard. A single systolic murmur was heard in the subclavian and carotid arteries of either side. The double aortic murmur was heard to the right of the sternum as low as the fifth rib; between the fifth and sixth ribs it became single, and an inch farther down was replaced by a normal first and second sound. This last point is two inches to the right of the xiphoid cartilage. Over the body of the left ventricle a distinct murmur, systolic in time, was audible. No murmur was heard in the epigastrium or in the back.

Liver-dulness normal. Urine normal.

The patient gradually sank. Marked ascites soon developed; the lower extremities swelled to an enormous extent, and he died, in extreme dyspnœa, on the morning of March 6.

Autopsy, twenty-eight hours after death.—General œdema of lower extremities, including genitals. Some ascites. Inferior lobe of right lung partially solidified. Heart enormously enlarged; weighing, with thoracic aorta attached, 39½ ounces. There was evident thickening of the mitral valve in each cusp, more particularly at their junction. Tricuspid valve natural. Semilunar valves of pulmonary artery normal, presenting, however, the peculiar perforated condition simulating the auricular ventricular valves. The semilunar valves of the aorta were thickened throughout, showing also the corpora aurantii unusually distinctly. Beyond this there is an atheromatous aorta, dilated into an aneurism, which occupies the whole ascending portion.

The kidneys were congested, but otherwise healthy. Liver weighs 5 lb. 12 oz.; its structure is firm, and exhibits a slight excess of fibrous tissue. Spleen firm, and shows an excess of connective tissue.

Dr. Tyson also presented, for Dr. H. C. Wood, a specimen of *soft cancer of the liver*, removed from a male patient dying in the Philadelphia Hospital. The disease was probably secondary. All the abdominal viscera were more or less involved in the resulting peritonitis. The liver was thoroughly adherent to the under-surface of the diaphragm, and the left kidney was drawn out with the liver, so close and strong were the adhesions.

An interesting peculiarity of the organ was the mode of enlargement which the organ assumed. Occupying probably a third of the liver, the growth extended itself in a mound-like

manner upward and backward, encroaching thus upon the posterior part of the thoracic cavity, while the lateral vertical enlargement was not great; so that percussion would reveal less enlargement than the greatly-increased size of the organ, as determined post mortem, would demand.

Dr. JAMES H. HUTCHINSON presented a specimen of *cancer of the liver and of the stomach*, removed from the body of a patient the immediate cause of whose death, on the 7th, had been acute peritonitis.

The patient had served as a soldier during the late war, and had been twice wounded,—once in the chest and once in the abdomen,—but otherwise had enjoyed good health until about the 1st of May, when he was obliged, in consequence of failing strength, to give up his employment as machinist and to seek some lighter work. In the following September, pain, referred to the right hypochondrium and epigastrium, became a prominent and distressing symptom, and caused him to give up all work. The pain was never accompanied with vomiting; it occasionally extended to the left side, and sometimes from the spine to the sternum on both sides. His bowels were usually constipated, often obstinately so. He gradually lost flesh and strength, and eventually grew so weak that he could not walk or stand.

When admitted to the Pennsylvania Hospital, February 1, 1872, his complexion was found to be sallow. Extension of hepatic dulness upwards, and tenderness over the region of the liver, were detected. The patient, when required to stand or walk, did so with great difficulty, and while doing so he kept his back bent forward. The general sensibility of the lower extremities was unimpaired, but the muscles of the right lower extremity contracted less than those of the left when the continuous current was applied. Although the patient denied ever having had syphilis, in consequence of the presence of some cicatrices resembling those left by rupia he was directed to have ten grains of iodide of potassium three times daily, under the use of which he regained a good deal of power in his legs. The area of hepatic dulness rapidly increased, and on the 23d of February the lower edge of the liver could be felt one and a half inches below the arch of the ribs. No nodules were discovered, but, on March 5, a little to the right of the position of the gall-bladder a hard body like the distended bladder could be felt. The temperature was usually 99°. Symptoms of acute peritonitis and pleurisy supervened on the 6th, and under these the patient rapidly sank.

At the autopsy the lesions of acute pleurisy and of acute peritonitis were found. The liver weighed eight pounds. It was increased in size in every direction; its upper part was lightly adherent to under surface of diaphragm; the right lobe contained from twelve to fifteen cancerous nodules, varying in size from that of a pea to that of a duck's egg. These nodules occupied principally the upper portion of the liver. The left lobe contained numerous growths. The stomach along or near its lesser curvature was involved in the disease. The mucous membrane over the deposits was in a few places ulcerated; the cardiac orifice was narrowed, the pyloric was unaffected. The spinal cord was found to be healthy, as were the kidneys and spleen.

Dr. Hutchinson called attention to the absence of vomiting in the case, to the symptoms which seemed to indicate a spinal lesion and which were partially relieved by iodide of potassium, and to the peculiar distribution of the pain. He was inclined to attribute these symptoms to the unusual seat of the cancer of the stomach.

Dr. HUTCHINSON also presented the *ileum, showing marked enlargement of Peyer's patches and solitary glands*, removed from the body of a patient who died March 12.

He was admitted into the medical ward of the Pennsylvania Hospital March 9. It was ascertained that he had been ill eight days with fever, diarrhœa, and prostration. On admission, the patient's face was flushed, his eyes were injected; he had marked mental hebetude and frontal headache. All the symptoms of typhoid fever, except the abdominal eruption, were present. There were, in addition, evidences of slight congestion of the posterior part of left lung.

On the evening of the day of admission the stupor was more marked. The pulse was 132 and compressible; the temperature was 105°. On the 10th there was an aggravation of his symptoms. Temperature, A.M., 104½°; P.M., 104°. Pulse, A.M., 120; P.M., 120. On the 11th the temperature continued high and pulse frequent. The patient obstinately refused to swallow, and an attempt was made to nourish him by the rectum. Death took place on March 12.

Autopsy.—Rigor mortis well marked. The chest and abdomen only were examined. The heart was healthy. There was marked congestion of the posterior portions of both lungs. The liver, kidneys, and spleen were healthy. The mucous membrane of the ileum was injected, especially at its lower part; the solitary glands were very much enlarged, some of them being as large as an ordinary pea. Peyer's patches towards the lower part of the ileum were elevated fully an eighth of an inch above the surface of the adjacent mucous membrane; a few were ulcerated. The ileo-cœcal valve was much swollen, and there were injection and ulceration of the mucous membrane of the cœcum.

Dr. Hutchinson remarked that the lesions in this case reminded him of those which he was accustomed to see, during the late war, at the autopsies of soldiers who had contracted typhoid fever in the army. It had not happened to him to meet with such cases in private or hospital practice.

In reply to a question, he said that the case had presented the usual symptoms of typhoid fever, and that he knew of no symptoms by which it could have been distinguished from the more ordinary form of the disease.

Dr. J. E. MEARS presented specimens of *hydatid cysts of the uterus and serous cysts of the pelvic cavity*.

REVIEWS AND BOOK NOTICES.

1. A TREATISE ON HÆMOPHILIA, SOMETIMES CALLED THE HEREDITARY HEMORRHAGIC DIATHESIS. By J. WICKHAM LEGG, M.D., Casualty Physician to Saint Bartholomew's Hospital. Sm. 4to, pp. 151. London, 1872.
2. "An Account of an Hemorrhagic Disposition existing in Certain Families." By JOHN C. OTTO, M.D., of Philadelphia. *N. Y. Medical Repository*, vol. vi., 1803, p. 1.
3. "Account of a Singular Case of Hemorrhage, extracted from a Letter of the late Dr. E. H. SMITH, of New York, to BENJAMIN RUSH, M.D., New York, April 9, 1794." *Philadelphia Medical Museum*, 1805, vol. i. p. 284.
4. "Account of a Remarkable Hemorrhagic Disposition existing in Many Individuals of the Same Family." By Dr. JOHN HAY, of Reading. *New England Journal of Med. and Surg.*, 1813, vol. ii. pp. 221–225.
5. "An Account of a Family Predisposition to Hemorrhage." By Drs. WM. and SAMUEL BUEL. *Transactions Physico-Medical Soc. N. Y.*, 1817, p. 304.
6. "Observations on Hereditary Hemorrhage." By REYNELL COATES, M.D., of Philadelphia. *N. A. Med. and Surg. Jour.*, 1828, vol. vi. pp. 37–53.
7. "A Case of Hemorrhagic Tendency, with Remarks." By Dr. JAMES N. HUGHES, of Simpsonville, Kentucky. *Transylvania Jour. of Med.*, 1831, vol. iv. p. 518. Report of another family, 1832, vol. v. p. 133.

In reviewing the valuable treatise by Dr. Legg, the only special volume upon hæmophilia in the English language, it becomes a matter of some interest to examine the American literature upon this subject, and to do so requires that we should go back to the early portion of the present century, when attention was drawn to it by Drs. Rush, Otto, and a few other prominent physicians; because, as will be found by careful research, very little has been written upon it in this country for the last forty years. I have therefore associated with the title of Dr. Legg's work the titles of the most prominent of the several articles which have appeared from time to time in our journals.

Although the title "Hæmophilia" is an ancient one, and common to the French, German, and English languages, it will appear as a new name to many of our readers, who know the disease better by that of the "*family predisposition to hemorrhage*," or "*the hereditary hemorrhagic diathesis*." Dr. Legg introduces his subject by some remarks upon the origin of the name. He then defines hæmophilia as "a disease both

hereditary and congenital; usually lasting throughout the life of the patient; accompanied by a hemorrhagic diathesis, and a tendency to swelling of the joints." He says, "I have preferred to use the name *hæmophilia*, because *hemorrhagic diathesis* has too wide a meaning. It would include all diseases in which a hemorrhagic tendency is present; and it is also wanting in definition, since it does not connote the hereditary and congenital character of the disease, nor the tendency to swelling of the joints; this swelling of the joints is often a more marked feature in the disease than the bleeding. The tendency to hemorrhage is only one symptom of this constitutional disorder."

Then follow the notes of five cases of the disease, in male subjects who came under his care, aged, respectively, 12, 24, 8, 20, and 23 years, with a family record of each one, showing that in the five families there were fifteen boys affected out of twenty-two. There were no cases of it among the females of these families. The succeeding chapters are devoted to the history of the disease, its etiology, symptoms, idiosyncrasies, morbid anatomy and pathology, diagnosis and prognosis, treatment, hygiene and social relations, and literature. The whole volume bears evidence of a great amount of labor, which may be somewhat realized when it is stated that the author has traced back the disease as far as the writings of Albucasis of Cordova, in the eleventh or twelfth century, and down through various German, Belgian, Danish, Dutch, East Indian, English, French, American, Russian, Swedish and Norwegian, and Swiss works, to the present time, embracing a list of one hundred and sixty-four contributors, eight of whom belonged to the United States.

There is perhaps no disease which is more decidedly hereditary than hæmophilia, although its descent has this remarkable peculiarity, that, notwithstanding it rarely manifests itself in female children, it is much the most frequently transmitted by them, first to their male offspring, and then by their daughters to the next generation. This is the testimony of most of our American writers upon the subject, and may be said to be the almost universal experience of those who have traced the disease through several generations, as has been done by Drs. Hay, Hughes, Otto, Buel, and other observers in this country. Dr. John Hay (*op. cit.*) traced the history of a family of *bleeders* for about one hundred years, and remarks, "The children of bleeders (males) are never subject to this disposition, but their grandsons by their daughters." Dr. Hughes says of two distinct family groups that the females were all exempt, but invariably transmitted the disease. The Drs. Buel relate a somewhat different experience, taken from the history of the family which came under their notice. The original bleeder had four sons and two daughters; in all of the former the predisposition existed to an extreme degree from early infancy: three bled to death. One daughter did not transmit the disease to her children; the other had a son who bled to death from a slight wound, and a daughter who had four sons, all bleeders, of whom two perished by hemorrhage in early childhood. All of the female members of the family were unaffected. I have myself met with a father and son who both bled profusely upon very slight injuries. They were both robust men, and the father was the healthiest in appearance of a family of four, all in good health, with the exception of his tendency to hemorrhage. Dr. Legg remarks, page 36, "There are several cases on record where the disease has passed from father to son, but it is not the rule. . . . Transmission through the father directly to the son is not uncommonly seen, when the father's brothers are bleeders but he himself has escaped."

Grandidier, who is the chief statistical authority in hæmophilia, although sometimes in error from his deductions in regard to inheritance, etc., has collected a large number of cases of the disease, and gives the proportion of the sexes affected as one female to eleven males. "Out of ninety-eight families there was a disposition to hemorrhage in the parents, grandparents, or cousins, in fifty-two."

Dr. Legg writes, page 32, "Others have thought that the disease arises when intermarriage of near relations is allowed; and support seems to be given to this view from the apparent greater prevalence of the disease in Germany, where the marriage of cousins is so little discouraged: it is also more common among the Jews, who are obliged to intermarry."

There is no question in my mind that this disease may sometimes result from consanguinity of the parents, having met with a very distressing example of it in a family where the father and mother were first-cousins, and where the disease seemed to have been aggravated from the fact that phthisis existed upon both sides. This double influence appeared not only to induce hæmophilia, but to render the children waxy-pale and delicate, prior to any loss of blood being experienced. The father married at 32, and the mother at 20. They had three children. The first, after repeated hemorrhages from various causes, bled to death when about six years old; the second, with excessive care, was kept alive until he was eight, when he fell a victim to cerebral disease, probably tubercular. He nearly lost his life from the extraction of a tooth, the hemorrhage being controlled only by digital compression kept up for twenty-four hours. The third child presented the same excessively pallid appearance, but perished before the hæmophilia was developed. The second son had a large head, was completely blanched, and had almost constant dripping epistaxis prior to his last illness. The father died of phthisis, and the mother from an accident. She was exceedingly frail in appearance, and no doubt also tubercular by inheritance from her mother.

This delicacy of appearance, except as the result of repeated bleedings, is not common in hæmophilia. Dr. Coates (*op. cit.*) records at length the case of a medical student aged 24, who nearly bled to death in this city, from the extraction of a tooth, the hemorrhage continuing with occasional interruptions from December 22 to January 1, and speaks of him as "vigorous in form, with every appearance of health." This ten days' bleeding resisted the effects of styptics, pressure, and the actual cautery, with every appliance that could be devised by the most skilful hands. He had bled for several days from a cut finger at the age of eleven, and belonged to a family connection in Delaware county, Pennsylvania, in which there were several children who had bled to death from trifling wounds. There is now resident in this same mentioned region a family of bleeders, one of whom died recently of hemorrhage from the bowels, which has long been a source of trouble and anxiety to a medical friend of mine, from whom I hope we may at some time have a full report. Dr. Hay also remarks, "Those who are subject to this indisposition are of a florid countenance, are remarkably healthy, and extremely irascible." Dr. John C. Otto (*op. cit.*) also testifies to the same effect.

Dr. Legg believes that the disease, as it occasionally occurs in women, is of a much less marked character than it presents in men. He says, page 35, "When women who are the subjects of hæmophilia bear children, their sons appear to be neither more nor less liable to the disease than if their mothers had sprung from a bleeder family but had been themselves free from the disease."*

With regard to the pathology of hæmophilia, we find the following remarks, page 87: "It is still buried in the deepest obscurity; nor are any glimmerings of light to be discovered in the numerous theories which have been advanced as to the nature of the disease. Some writers regard hæmophilia as an anomalous form of other diseases, or as dependent upon some alteration in the blood and blood-vessels together, or as a disease of the capillaries only. . . . In hæmophilia there is an imperfect development of the whole vascular system. In many cases the heart retains an appearance similar to that of the fœtus, and in parts the muscular fibres are wanting in the ventricular or auricular wall, being replaced by a membranous septum only. In others, the arteries are exceedingly thin, transparent, and unable to preserve a circular section. These appearances render it probable that there is an arrest of development, or backwardness of growth, in the heart and blood-vessels. Now, true hæmophilia is a congenital disease, and it may be that the fœtal state of the vascular system persists in extra-uterine life. Newly-formed vessels are very liable to hemorrhage, spontaneous and traumatic: the new-born infant

* I have seen in this city within a few days a lady who has this disease in a mild form, whose daughter is similarly affected, but whose son is free from the malady. The daughter is grown up, but for years has been subject to frequent attacks of dripping epistaxis, which appear of late to be growing less violent and more infrequent. Both bleed to moderate excess from slight injuries, but never to the extent common in male subjects.

bleeds much more readily and for a longer time than the adult. The vessels of newly-formed granulations and of rapidly-growing tumors bleed upon very slight provocation. If the vessels in hæmophilia were permanently in the fœtal or newly-developed state, frequent and long-continued bleedings might well be expected from them. And in this case it would not be surprising that not much alteration should be detected with the microscope, which has happened in two cases in which such an examination was made."

This is certainly a very plausible hypothesis, and possibly correct in many cases; but it will not do to base the cause of hæmophilia upon one anatomical condition, when it is well known that neither the disease nor the physical characteristics of its subjects are at all uniform. Some are delicate, effeminate in appearance, and almost beardless; others are directly the reverse. In some the heart is normal, in others nearly in its fœtal state, and in some, again, of enormous size without apparent disease, etc. Those of delicate build and appearance seem to be the most liable to spontaneous hemorrhages and arthritic effusion and enlargement; whilst those who are florid and robust are most in danger from the effects of trifling contusions, cuts, and lacerations. Ecchymoses, and bloody areolar tumors from a slight knock or pinch, no doubt result from a tenuity of the capillary vessels; but this will not account for all the cases of excessive loss from slight incised wounds. Hæmophilia is a complex disease, and unquestionably originates in a combination of abnormal conditions, some or all of which may be present in a case, according to circumstances. It is a disease of defective organization, the origin of which must be sought for by chemical and microscopical examination of the blood, by post-mortem investigations into the condition of the heart and blood-vessels, and especially of the capillary arterioles of the part most recently affected by hemorrhage. The condition of the nerves should also be examined by the microscope. Why should a man bleed to death from a cut of his cheek two inches long and three lines deep, made by a sword in a German duel, as reported by Escherich, in Hencke's *Zeitschrift*, 1847? With our improved means of minute investigation, it would appear that the true cause of the incontrollability of such hemorrhages should before long be determined. As lacerated wounds are more dangerous in hæmophilia than incised ones, it is evident that the various changes which arrest bleeding from the former in healthy subjects cannot take place, and we must look for the converse as regards the effect upon the arteries and blood produced by this imperfect form of torsion. If the heart's impulse upon the capillary arteries is not overcome by contraction and thrombosis, then we must have continuous hemorrhage, whether this want of action be due to defective development in the vessels, the want of proper stimulus by the nerves, imperfect coagulability of the blood, or all three combined, and perhaps assisted by an abnormal contractile power in the muscular structure of the heart. The normal elasticity of our arteries, allowing of their progressive dilatation under the heart's impulse, is a provision of safety whereby the capillaries receive their current of blood under a diminished pressure, as will readily be perceived. If, then, we should have a defect in this provision, so that the capillary pressure should be in excess, and at the same time a defective contractile power in the wounded vessels, with blood that does not readily coagulate, we can easily account for the difficulties of arresting the hemorrhage. The valuable effects of tincture of the perchloride of iron in diminishing the disposition to spontaneous hemorrhages would appear to indicate an original blood-defect in such cases. Drs. William and Samuel Buel (*op. cit.*) remark in regard to their patients, "The blood is not destitute of coagulability; large coagula are frequently formed about the orifices of the wounds, but the *strong impetus* with which the blood flows overcomes their too feeble resistance. When by any means the hemorrhage is suppressed, the part above usually becomes livid and intensely painful, so that relief is obtained only by permitting a recurrence of the bleeding."

Dr. Legg remarks, page 77, "The examination after death of persons who have suffered from hæmophilia has hitherto thrown little light on the disease. . . . In the greater number of cases, it is stated that all the organs examined, especially the heart and vessels, were natural." What is still much wanted is a minute and thorough microscopical examination by a committee of experts, and a comparison with exactly similar parts and tissues taken from unaffected subjects, so as to determine by micrometric calculation the development of the muscular fibres in the arteries, the calibre of these vessels, and the thickness of their walls. It would also be well to measure in the living subject the comparative force of the arterial current.

The mortality from hæmophilia presents a frightful picture, and shows why it is that this disease is prevented from becoming a much more common inheritance. Grandidier, before quoted, states that of one hundred and fifty-two boys, but nineteen reached the age of twenty-one: eighty-one of them died during the first seven years, and twenty before they were a year old, the most usual cause of death being hemorrhage. The great comparative exemption of the female children, and their power of transmission, is mainly the cause of the descent of the disease as it has been observed from generation to generation in some families. In determining the hereditary character of the convulsions in children as it sometimes appears, I traced the complete history of one family to every ramification through one hundred and thirty years; and it would be interesting at this date, if possible, to continue the investigations of Drs. Hay, Buel, Coates, and Hughes, and see whether the disease has disappeared or is still in continuance. My researches in regard to convulsions bring me down to the case of a girl of six, in the fourth generation, recently attacked, the disease coming through the mother, grandfather, and great-grandfather. As in this type of eclampsia, so in hæmophilia, the disease manifests itself under the most trifling impression. Death has resulted from cutting the gums, the frænum of the tongue, or even vaccination; and hemorrhages from the mucous membranes equally fatal have resulted from sneezing, blowing the nose, coughing, and sickness of stomach.

The medical treatment of hæmophilia, it will be naturally inferred, can have but little if any curative influence, as the disease, except in very rare instances, remains throughout life. Constant care may prevent in great measure the occurrence of traumatic hemorrhage, and the use of chalybeates, with proper hygienic treatment, diminish the frequency of spontaneous attacks. It was at one time thought that the sulphate of soda had a direct influence in arresting the flow of blood, and its applicability was considered a great discovery by some of the bleeder families; but more recent investigations have demonstrated that it is of comparatively little value, except as a purgative. Ergot and gallic acid, with various astringents, and opium, have all met with their advocates. If it be true with regard to any case, as claimed by some of the German authorities, that the heart beats more frequently and forcibly than normal, that the arteries have no contractile power, and that the blood is below standard in coagulability, then remedies diminishing the heart's action, such as digitalis, veratrum viride, etc., together with tincture of the perchloride of iron, and strychnia, might be employed with some advantage. It should always be borne in mind that it is rarely safe in acute disease to bleed, blister, cup, leech, or cauterize, as remedial measures, any one inclined to hæmophilia.

Dr. Legg, page 126, introduces the important social question, "Should a bleeder, or one of a bleeder family, be allowed to marry?" He takes the ground that every right-thinking person will for the sake of posterity remain single, and every one not so minded should be forced to the decision by a legal enactment. In conclusion, we have only to commend the treatise of Dr. Legg as one well worth a general perusal.

R. P. HARRIS.

ON AN IMPROVED METHOD OF PHOTOGRAPHING HISTOLOGICAL PREPARATIONS BY SUNLIGHT. By Assistant-Surgeon J. J. WOODWARD, U.S.A. Washington, D.C., 1871.

Hitherto the great obstacle in photo-micrography has been the want of some convenient and inexpensive source of illumination. In previous reports Surgeon Woodward has demonstrated the satisfactory results that can be obtained by the employment of artificial sources of illumination, such as the electric, oxy-calcium, and magnesium lights. The great trouble and expense incident to the use of any of these sources of illumination have thus far deterred most histologists from employing this unrivalled method of illustrating their works.

This report, with its accompanying nine plates, representing the microscopical appearances of sections of striated muscular fibres, ovary, lung, liver, etc., makes a very favorable impression of the excellent manner in which the histological work has been performed, and of what may be accomplished by the use of sunlight itself in photo-micrography. No one examining these pictures can fail to appreciate the promising value of this branch of photography as a means of bringing into a tangible form before the profession the results of original histological and pathological observations. We agree fully with the author when in his concluding remarks he predicts that "if photographic representation was universally demanded, a higher class of preparations than those which now satisfy too many microscopists would become indispensable, and the vague description, based on clumsy or imperfect preparations, which too often disfigures microscopic literature, would be replaced by a more accurate representation of the actual facts."

That photo-micrography will soon be found to be an indispensable accomplishment of every successful microscopist, seems all the more probable, now that we have given to us this simple and economical method, yielding pictures at least equal, if not superior, to those produced by any other known process. In this improved method of photo-micrography, "with the exception of the mounting of an ordinary solar mirror, no special apparatus is absolutely needed for this purpose which may not be made by the microscopist himself, or at least produced at a very trifling cost. Nothing more than a knowledge of the principles of photography is required. In every case the services of a good dark-room man should be procured, and if the preparations are carefully selected beforehand, and the highest wages paid to the best operator attainable, the average cost of the negatives will be far less than that of the cheapest and most indifferent drawings. Accuracy of representation in these objects can only be satisfied by photography, and photography is not only the most accurate, but the cheapest and least troublesome method of reproducing microscopic objects."

This successful method of taking photo-micrographs by sunlight without the use of the expensive heliostat is for the first time given to the public, and for its discovery and perfection we are indebted to Surgeon Woodward.

We regret that our limited space precludes as minute a description as desirable of this process. We shall therefore content ourselves with a succinct account of a few of its more important features; recommending a careful perusal of this excellent monograph to all who contemplate studying this interesting branch of photography.

A large condensing-lens is fitted into the outer extremity of a brass tube six or eight inches long and two inches in diameter. Just below this tube an arm is firmly attached to the outer surface of a disk encircling the tube for the purpose of carrying the mirror or right-angled prism, to which any desired inclination can be given by a rod passing through the disk by the side of the tube. The whole arrangement is quite like the similar parts of the ordinary solar microscope, and hence needs no further description; it is fitted into a window-shutter, which must of course face to the south, and, the room being darkened, the motions of the mirror or prism can readily be controlled from within. The achromatic condenser, illuminated by a parallel pencil obtained from the prism, answers better for certain objects, such as the pleurosigmata and some other diatoms, for which the condensing-lens is unnecessary; and, if properly managed, no diffraction or interference phenomena are produced. For all perforations of the soft tissues which require the large condensing-lens to avoid diffraction and interference, a common glass mirror will answer well enough. By this plan the exposure is greatly diminished,—from three minutes for five hundred diameters, to a fraction of a second,—and the resulting pictures are not only quite free from diffraction and interference phenomena, but are characterized by great contrast and superior sharpness of definition.

It is a matter of some difficulty to regulate with precision the exposure when the time required is but a fraction of a second. To facilitate this matter, the author has very ingeniously arranged "a sliding shutter, with a transverse slit of variable width, so adjusted as to fall with its own weight before the tube of the microscope; the exposure being made during the passage, and the time of exposure regulated by the width given to the slit."

Preference is given to immersion-objectives of even as low a power as one-eighth of an inch, the corrections of these objectives being generally well suited to photographic requirements.

It has also been found best to use the naked objective without eye-piece or amplifier, and not, as a rule, to fix the sensitive plate more than three or four feet from the stage of the microscope. Suitable amplifiers, or even eye-pieces, may be used in either high or low powers with great increase of the magnifying power, and often with admirable scenic effect, but there is always a certain loss of definition. In the management of the plate-holder, the apparatus for focussing, and other accessory arrangements, the same simple plan is followed for solar light as described in full in Woodward's previous reports on the use of artificial lights in photo-micrography.

BOOKS AND PAMPHLETS RECEIVED.

On Organic Physics. By Henry Hartshorne, M.D. Read before the American Philosophical Society, January 19, 1872.

The Mysterious Death of Margaret Campbell critically examined; with a Review of the Testimony, Verdict of the Jury, Comments of the Press, etc. By T. D. Crothers, M.D., Member of the Albany County Medical Society. Pamphlet.

Report of the Municipal Hospital (comprising Statistics of 1227 Cases of Smallpox). By William M. Welch, M.D., Physician in Charge. From the Annual Report of the Board of Health of the City of Philadelphia for the Year 1871.

GLEANINGS FROM OUR EXCHANGES.

THE TEETH AND MOUTH IN IDIOTS.—In a previous number we gave an abstract of the observations of Dr. Langdon Down in reference to certain characteristics of the mouth and teeth of congenital idiots. Dr. J. W. White, editor of the *Dental Cosmos*, has been making some observations in the same direction, and thus records in that journal the result:

"The views expressed by Dr. Down, so far as they related to the narrow arch and vaulted palate as associated with mental defect of congenital origin, are in exact accordance with opinions which the writer had long entertained and frequently expressed,—opinions originating, probably, from observations of the mouths of a family most of whose members were considered as lacking in mental power; one of whom—the most markedly deficient—presenting in extreme the peculiar mouth under consideration, which characterized to a greater or less extent the entire family.

"To investigate the facts, more especially in reference to the other deviations from normal conditions, we recently sought and obtained, from the gentlemanly superintendent (Dr. J. N. Kerlin) of the 'Pennsylvania Training School for Feeble-minded Children,' an invitation to spend a day at that institution. In company with an esteemed dental friend, who took a deep interest in the problems presented, but who had formed the opinion that the characteristic mouth of idiots was abnormally flat and broad, we devoted the day to an examination of the dental and other peculiarities of the inmates, numbering about one hundred and eighty.

"The first three cases which presented were, by a singular coincidence, so strongly confirmative of Dr. Down's position in reference to the narrow and deep arch, that there was corresponding assurance on the part of one of the examiners, and distrust on the part of the other, as to the correctness of previously-formed opinions. The next case was the exact reverse, a broad, flat mouth; the evidence being strongly in favor of the congenital origin of the mental defect, which was decidedly pronounced. To these succeeded a series of cases which were absolutely free from any noteworthy peculiarity of the oral cavity. Among the balance we found three more marked cases of narrow and vaulting arches; but many where the deviation, if any, from normal condition was in the direction of breadth and flatness rather than the reverse.

There were two cases of V-shaped upper maxillary; two of disproportionate size of lower jaw; several of *unusually* broad and flat arches; one case of hanging and one of cleft palate; and several cases of incomplete dentition,—a missing lateral or canine. We could not determine any special deviation as to time or sequence in dentition, and were forced to the conclusion that, considering the inattention to their teeth, as to everything else connected with the care of their persons, the teeth stood the test of neglect remarkably well.

"In the mouths of some of the inmates—especially those whose mental development was little above zero—there were teeth which, for size, regularity, density, and perfection of form, would answer as models. There were also teeth which were faulty in every respect and relation; but, on the whole, we had to admit they were about an average lot,—neither better nor worse than those of the same number of similarly-neglected people of ordinary intelligence.

"There is one fact apparent to the most superficial observer,—the rapidity with which these poor creatures grow physiologically old. The evidences of senility are noticeable in every organ and function: in premature baldness and gray hair; in dulness of hearing and dimness of vision; in the wrinkled skin; the tottering step; the wasted limbs; the receding gums, and absorbed alveolus. So that, in several cases, the man of thirty, by the record, seemed to be on the other side of sixty. Even in these cases, the teeth which were ready to drop from their sockets were not unfrequently sound in their structure.

"Subsequent examination of the mouths of a number, believed to be congenital idiots, has resulted in finding three more cases of the high and narrow palatal arch; but these were counterbalanced by other cases where the development was exactly the opposite, and by others where there was no discoverable abnormity; while several marked instances of the mouth described by Dr. Down have been found associated with intelligence of a decided character; one instance, in particular, of excessive height and extreme narrowness,—more marked than any we found among the feeble-minded,—in the case of a very intelligent and successful professional man.

"Notwithstanding these apparent contradictions, it seems reasonable that there is a correlation between physical and mental organizations; and the deductions of one who has had such ample opportunities and so extensive an experience as Dr. Down are not to be set aside by the observations of a day, even if no solution of the problem presented; but it is presumable that the class of imbeciles which came under Dr. Down's inspection differs, as a rule, from the majority of those who are to be found here, in such an institution as the one mentioned.

"We suggest as a reasonable explanation the probability that the cases of which our opportunities allowed an examination were chiefly the result of accidental, individual causes, occurring during gestation, or inhering only in the immediate progenitor,—perhaps in an exceptional condition at the time of impregnation or conception, such as the perversion of function produced by inebriation or other perturbating influences; while Dr. Down's cases were probably examples of continuous enervating and degenerating influences of intermarriage and other depressing causes connected with the life of the aristocracy. These causes, being cumulative through successive generations, would doubtless produce a different style of abnormity from that which is the result of individual and accidental causes. That a law of correlation between progressive mental and physical development or deterioration exists, there can be no doubt, nor that it can be traced, if we 'observingly distil it out;' but problems like these are not definitively settled except by the concurrent testimony of various observers."

Alcoholic Paraplegia.—Dr. Samuel Wilks, in a communication to the *Lancet*, March 9, 1872, calls attention to a lecture on this subject which was delivered by him in October, 1867. In the course of the lecture he says that he has seen many persons, especially ladies, who have entirely given themselves up to the pleasures of brandy-drinking, and have consequently been rendered paraplegic. A loss of power is first observed, accompanied by pains in the limbs, which might indicate a chronic meningitis of the spinal cord, and in some cases there is anæsthesia. There is at the same time some amount of feebleness of other parts of the body, as well as of the mind, and thus an approach to general paralysis is produced; but sometimes the symptoms are almost confined to the legs, and resemble in character those of locomotor ataxy. In regard to the treatment, this is hopeful. He recommends the iodide or bromide of potassium before commencing galvanism or a tonic course, but insists strenuously upon the removal of the primary cause of the complaint, and says that there is no reason to fear that either an attack of delirium tremens or death will be induced by the complete withdrawal of alcohol when the system is being poisoned by it. "I have seen persons," he says, "more especially ladies, lying on their beds surrounded by friends waiting for their last moments, where scarcely a mouthful of food had been taken for months, where the prostration, increased by urgent sickness, was extreme, and where they were constantly plied with brandy to keep them alive a little longer; and yet, in such cases, where the diagnosis was clear, from the blood of the patient being overcharged with poisonous elements, and the room stinking with the fetid vapors of the body, I have recommended a withdrawal of every drop of the so-called 'stimulus,' and with effects more marvellous than any one who has not adopted the plan can conceive."

Sclerosis Uteri.—Prof. Alexander J. C. Skene, in the course of a clinical lecture (*The Medical Record*, March 1, 1872), thus sums up the leading points in the diagnosis of this affection:

1. A clinical history indicating that the patient has previously had puerperal metritis, followed by an impaired state of health.

2. Constitutional symptoms such as occur in chronic forms of uterine disease.

3. Derangement of function: usually irregular, scanty, and painful menstruation. The pain continues, as a rule, through the whole period of menstruation, and may be likened to an exaggeration of the ill feelings of an ordinary menstruation. By these peculiarities it may be distinguished from the dysmenorrhœa caused by flexion of the uterus. In this latter affection the pain is that of intense uterine colic, and is usually limited to the beginning of menstruation, decreasing or disappearing when the flow begins.

4. Enlargement and induration of the uterine walls.

5. Increased length of the uterine cavity, without increase of the lateral and antero-posterior diameters.

6. Anæmia of the uterus, indicated by the amenorrhœa, and the pale appearance of the cervix.

7. Absence of cervical disease, such as occurs in hyperæmic and inflammatory affections.

8. The slight retraction of the lips of the os, and the small diameter of the cervical canal in proportion to the increased size of the cervix.

The Treatment of Croup.—Dr. Daguillon recommends (*Gazette Hebdomadaire*, 1871) the following treatment when symptoms of suffocation from croup are imminent: A sponge, after being dipped in pure liquor ammoniæ, is to be squeezed until no more liquid drops from it, and is then to be passed, by means of a whalebone probang, down the throat. The child should be compelled to inhale the vapor of ammonia as long as it possibly can. The immediate result of this treatment is an abundant secretion from the respiratory mucous membrane and the expectoration of false membrane; the dyspnœa diminishes, the cough is less hollow, and the voice is less muffled. Often, in cases where death seemed imminent, the lives of children have been saved.

Relapses of Scarlet Fever and Measles.—Dr. Trojanowsky has had an opportunity for observing (*Journal für Kinderkrankheiten*, January and February; from the *Dorpater Medic. Zeitschrift*, 1871, S. 297–300) several cases in which relapses of the acute exanthemata took place. From observations made in these cases, he believes that the recurrence of the eruption ought not to be looked upon as a true relapse, but rather as a complement of the first attack. He has found that whenever the manifestations of any one of these diseases were incomplete in the first attack, the symptoms which were least marked became more prominent in the second.

HYDATID OF THE ORBIT.—Dr. Steiner reports, in the *Wiener Medizinische Presse*, February 18, 1872, a case of this kind occurring in a boy ten years of age. About two years before coming under Prof. Billroth's care, slight displacement upwards and inwards and prominence of the left eyeball were noticed. Some of the symptoms induced Prof. Billroth to believe that the displacement was caused by a vascular tumor; but its cystic nature was discovered as soon as an exploring-needle was introduced. It was removed by an operation. Dr. Steiner calls attention to the rare occurrence of this disease in the orbit, there being not more than a dozen such cases reported.

TREATMENT OF RETENTION OF URINE IN IMPERMEABLE STRICTURE OF THE URETHRA.—Dr. P. A. O'Connell, late Medical Director of the "Ninth Army Corps, U.S. Army" (*Lancet*, March 1, 1872), describes an expedient which he had recourse to after failing to pass a catheter, and which he has since found useful in other cases. "Having upon my office-table an india-rubber hand-syringe consisting simply of a rubber pouch or ball, with a hard rubber stem to it, that I generally used as a part of Politzer's apparatus for inflating the middle ear, it occurred to me that it might be made use of as an exhauster,—a suction-instrument,—and that by this means, perhaps, the stream of water could be started. Acting upon this idea, I took a catheter of medium size, made a perforation in its extreme end, and passed it *down* to the stricture. Then, squeezing the rubber pouch so as to drive out the air, I connected it by means of a short piece of india-rubber tubing with the catheter already in the urethra, and, allowing it to expand gently,—instructing the patient at the same time to make a gentle effort, *and only a gentle effort*, to pass his water,—I had the satisfaction of learning that the experiment had become a success, and that the man was relieved."

THE CAUSE OF HYDROCELE.—M. Panas, in a communication on this subject to the *Archives Générales de Médecine*, reports several cases in which, after tapping for hydrocele, the epididymis was found indurated. He is consequently inclined to believe that the accumulation of serum in the sac of the tunica vaginalis is due to this induration, which in some way interferes with the return of blood from the scrotum. Hydrocele generally does not occur in individuals under forty; and since it is at that age that the alterations of the neck of the bladder and of the prostate are common, the inference is justifiable that the morbid process in some cases extends to the epididymis and to the testicle.

PURPURIC SPOTS PRODUCED BY IODIDE OF POTASSIUM AND IODIDE OF AMMONIUM, BUT NOT BY IODIDE OF SODIUM.—Dr. Sydney Ringer, in a note to *The Practitioner* for March, 1872, reports a case in which a petechial rash was caused by the administration of the first two drugs, but not by the last.

CARDIAC COMPLICATIONS OF GONORRHŒA.—M. Lacassagne reports, in the *Archives Générales*, a case in which pericarditis supervened upon an attack of gonorrhœa. There was no urethral discharge during the attack of inflammation, but it reappeared when the pericarditis was cured. Several similar cases are referred to. M. Lacassagne infers from these cases that gonorrhœa predisposes not only to inflammation of the joints, but also to that of the pericardium and endocardium.

MISCELLANY.

DEATH OF PROFESSOR DICKSON.—William Henry Dickson, M.D., Professor of the Theory and Practice of Medicine in the Jefferson Medical College of Philadelphia, died at his residence in this city on Sunday, March 31. An obituary notice of this distinguished gentleman will appear in our next number.

At a special meeting of the Faculty of Jefferson Medical College, convened in reference to the death of their late esteemed colleague, Professor Dickson, it was

"*Resolved*, That the members of the Faculty have heard with deep-felt sorrow of the demise of their late distinguished colleague, Samuel Henry Dickson, M.D., LL.D., Professor of the Theory and Practice of Medicine, whose name and fame for the last fourteen years have been connected with this Institution, and for half a century with medical teaching. Ripe in years, and rich in all the honors that could be gathered from the broad fields of science and literature, he has closed a long and active life, made, by his genius and vast experience, most eminently useful in ministering to the relief of the sick, and in the education of a very large portion of the medical profession of this country. A courteous gentleman, a genial and refined associate, always amiable and instructive in his intercourse with his fellows,—wise, learned, and accomplished as a teacher,—the Faculty of this College and the profession at large may well sorrow over the extinction of a life so rich in usefulness and renown."

It was further

"*Resolved*, That the Faculty, in remembrance of his many virtues, and in profound respect to his memory, will pay their last tribute to a loved colleague by attendance at his funeral; and further,

"That a copy of these resolutions be transmitted to his family." B. HOWARD RAND, M.D.,

Dean of the Faculty.

At a special meeting of the students of the Jefferson Medical College, held April 1, 1872, the death of W. H. Dickson, M.D., LL.D., Professor of the Theory and Practice of Medicine in the Jefferson Medical College, was announced, and the following resolutions were unanimously adopted:

"*Resolved*, That we, the students of the Jefferson Medical College, have lost a most eminent and earnest instructor, and a valued friend.

"*Resolved*, That, in his death, the medical profession has lost a most distinguished member,—a man intimately connected with the progress of medical science during the last fifty years. Eminently successful in his labors as a teacher, his loss will be mourned by the thousands who have listened to his able instructions.

"*Resolved*, That a copy of these resolutions be sent to his bereaved family, with whom we deeply sympathize; and that, in further token of our respect, we will attend his funeral in a body." FRANK WOODBURY, Pennsylvania,

President.

FRANKLIN WEST, Pennsylvania,

Secretary.

Charles H. Fisher, California; George D. Topping, M.D., Ohio; John E. Halbert, Mississippi; Hext M. Perry, M.D., South Carolina; J. Eliason, Maryland, *Committee.*

DEATH OF PROFESSOR JACKSON.—Samuel Jackson, M.D., Emeritus Professor of the Institutes of Medicine in the University of Pennsylvania, died at his residence in this city, aged 85 years.

METEOROLOGICAL.—The mean temperature of the month of March, according to the record kept at the Pennsylvania Hospital, was 34°.25, or about five degrees below the average of means for March since 1790, which is 39°.14. The highest temperature observed during the month was 62°, on the 29th. On the 5th, the thermometer ranged between 6°—the lowest temperature observed during the month—and 20°. The month of March just past, although unusually cold, was not unprecedentedly so, for in 1843 the mean temperature during the same month was only 30°.

The quantity of rain which fell in March was 3.38 inches; the average rainfall for the month during the past thirty-five

years having been 3.9 inches. Thus far during the present year only 5.84 inches of rain have fallen, against 12.47 inches during the first three months of last year.

DELEGATES TO AMERICAN MEDICAL ASSOCIATION (as far as heard from).—*College of Physicians*, Drs. Ruschenberger, Bridges, A. Stillé, F. G. Smith, I. Ray, E. Hartshorne, Ellerslie Wallace, R. H. Townsend, T. Hewson Bache, B. H. Rand, Wm. Hunt, J. H. Packard, R. J. Dunglison, J. M. DaCosta, A. D. Hall, John Ashhurst, Jr., H. C. Wood, Jr., F. F. Maury, Samuel B. Howell, and H. Y. Evans.

Philadelphia County Medical Society, D. H. Agnew, R. Burns, A. H. Fish, A. Fricke, Wm. Goodell, Saml. D. Gross, George Hamilton, N. L. Hatfield, A. G. B. Hinkle, W. L. Knight, A. Leaman, W. Mayburry, J. Aitken Meigs, Andrew Nebinger, Wm. H. Pancoast, and J. G. Stetler.

Pathological Society, James H. Hutchinson, James Tyson, J. Ewing Mears, S. Lewis, John H. Brinton, William Pepper, W. W. Keen, S. W. Gross, Francis W. Lewis, Samuel Ashhurst, R. A. Cleemann, Elliott Richardson, J. Minis Hays, R. M. Townsend, Wm. G. Porter, and Wharton Sinkler.

Obstetrical Society, R. P. Harris, J. L. Ludlow, D. M. Cheston, L. D. Harlow, S. S. Stryker, and Wm. F. Jenks.

Ophthalmological Society, T. G. Morton, Wm. Thomson, E. Dyer, and Wm. F. Norris.

Medico-Chirurgical Society, A. G. Reed, S. B. W. Mitchell, and H. W. Ozias.

Northern Medical Association of Philadelphia, N. L. Hatfield, J. H. Swartz, Levi Curtis, L. P. Gerhard, and L. J. Deal.

Philadelphia Hospital, John S. Parry and Edw. L. Duer.

Orthopædic Hospital, H. Earnest Goodman.

Northern Dispensary, Charles Carter.

Medical Board of Northern Dispensary, Charles K. Mills.

Jefferson Medical College, Joseph Pancoast and Samuel D. Gross.

Philadelphia Eye and Ear Infirmary, J. W. Millick.

Children's Hospital, H. Lenox Hodge.

Howard Hospital and Infirmary for Incurables, David Burpee.

Wills Hospital, George C. Harlan.

Pennsylvania Hospital, J. Aitken Meigs and Addinell Hewson.

Episcopal Hospital, H. Norris and William S. Forbes.

AMERICAN MEDICAL ASSOCIATION.—We publish the following for the information of our subscribers:

The twenty-third annual session will be held in Horticultural Hall, Broad Street above Spruce, on Tuesday, May 7, 1872, at 11 A.M.

HOTEL ARRANGEMENTS.

Continental, Chestnut and Ninth, $4 a day.
Girard, Chestnut and Ninth, $3 a day.
La Pierre, Broad below Chestnut, $3 a day.
Colonnade, Chestnut and Fifteenth, $3 a day.
St. Cloud, Arch below Eighth, $3 a day.
St. Elmo, Arch above Third, $2.50 a day.
American, Chestnut below Sixth, $2.50 a day.
Merchants', Fourth above Market, $2.50 a day.
St. Lawrence, Chestnut below Twelfth, $2 a day.
Alleghany, Market below Ninth, $1.75 a day.
St. Charles, Third below Arch, lodging only, 50 cts. a day.
Miller's, Seventh and Chestnut, lodging only, $1.50 a day.
Meals at restaurant of Horticultural Hall, and Petry's, N.W. corner Broad and Walnut, each 50 cents.
318 South Broad, $2 a day, or $10 a week.
N.E. corner Broad and Spruce, $1.50 a day, or $10 a week.
329 South Broad, $2 a day, or $10 a week.
1327 Spruce, $2 a day, or $12 a week.
225 South Broad, $2.50 a day, or $12 a week.

RAILROADS.

Union Pacific, return free, if first-class tickets are bought and an acknowledgment taken from the agent.
Cumberland Valley, excursion tickets.
Orange, Alexandria and Manassas, half-fare for return.
Pittsburg, Cincinnati and St. Louis, excursion tickets.
Pittsburg, Fort Wayne and Chicago, excursion tickets.
Cleveland and Pittsburg, excursion tickets.
Central Railroad of Georgia, return free.
Richmond and Petersburg, return free.
Wilmington and Weldon, excursion tickets one fare.
Wilmington, Columbia and Augusta, excursion tickets one fare.
Kansas Pacific, one and one-fifth fare for excursion.
Atlanta and New Orleans Short Line (A. and W. Pt. Western, Mobile, and M. N. O., M. and Texas Railroads), return free.
Western and Atlantic, excursion tickets one fare.
Western Alabama, excursion tickets one fare.
Evansville and Crawfordsville, excursion tickets.
Lehigh Valley, excursion tickets one fare.
Louisville and Nashville, excursion tickets.
Memphis and Louisville, excursion tickets.
North Pennsylvania, excursion tickets two-thirds fare.
Pennsylvania Central, excursion tickets.
Philadelphia and Erie, excursion tickets.
Philadelphia, Wilmington and Baltimore, excursion tickets.
Philadelphia and Reading, excursion tickets at two-thirds.
Baltimore and Ohio, excursion tickets.
Lake Shore and Michigan Southern, excursion tickets if forty are taken.

All who desire to avail themselves of the above rates must send to the Secretary their full names, and the names of *all* the railroads over which they must travel in coming to the session, with stamp for postage.

WM. B. ATKINSON, *Permanent Secretary*,
1400 Pine Street, Philadelphia.

SPECIAL.

Camden and Amboy, excursion tickets at $4 from New York to Philadelphia and return, if fifty tickets are taken. For this ticket, send money to Dr. A. E. M. Purdy, 123 East Thirty-eighth Street, New York.

From Montgomery, Ala., to Philadelphia, and return (by Tennessee), $39.80. Apply through Dr. R. F. Michel, Montgomery, Ala.

From Washington to Philadelphia and return, $6, if fifty tickets are taken.

Central Pacific, half local rates.

APPOINTMENT.—Dr. James Tyson has been elected Attending Physician to the Philadelphia Hospital, *vice* Dr. Alfred Stillé, resigned.

THE FIRST MEDICAL JOURNALIST.—The *Medical and Surgical Reporter* of March 23, in an editorial with this heading, assigns the honor of being the first medical journalist to Dr. Nicolas de Blegny, who edited the *Zodiacus Medico-*

Gallicus from 1680, when it was started, until 1684. Born in a humble station in life, Dr. de Blegny does not seem to have had the advantages of a learned education; he, however, was possessed of unusual energy, and at the early age of twenty-five was appointed Surgeon to the Queen. Five years afterwards he became Surgeon-in-Ordinary to the Duke of Orleans, and, four years later,—1687,—Physician to the King, Louis XIV. During these years he was busily engaged in writing and lecturing on various medical topics. None of his works, it is said, indicate much ability; but they are known only through the criticisms of his enemies. The comments of the journal upon some medical books embittered their authors, who succeeded in procuring its prohibition in 1684. It was then transferred to a Dr. Niort, a French physician practising in Amsterdam, who determined to render it less medical and more literary. With this object he named it *Le Mercure Galant.*

The enemies of De Blegny were not satisfied with causing the suppression of his journal, but continued their persecutions until they procured his imprisonment in the castle of Antwerp, where he remained seven years. He spent the rest of his days at Avignon, dying in 1722, at the age of seventy.

THE PATHOLOGY OF PAINTING.—Mr. Liebreich proposes (*British Medical Journal*, March 9, 1872) to give a lecture at the Royal Institution as to the effects of certain faults of vision, with special reference to Turner and Mulready. Himself an accomplished artist, this great ophthalmologist has, in studying the various periods of Turner's style, arrived at the conclusion that the later aberrations which some connoisseurs have affected to admire were demonstrably the result of a physical change in the refraction of the eye, by which illuminated points were converted abnormally into illuminated lines. Tracing the advance of the disease by the increasing eccentricities of pictorial effect, he has been able repeatedly and with accuracy to date precisely the pictures and sketches of the later period by this means of purely optical and, so to speak, medical diagnosis; and, by producing a similarly aberrant dispersion of light, he will be able to demonstrate before the eyes of the spectators the conversion of pictures of the earlier into those of the later style of the great artist. In the case of Mulready, Mr. Liebreich has determined that the so-called change in manner which marks his later pictures, and which are characterized by an excessive prevalence of purple tints, was due to increasing yellow degeneration of the crystalline lens of the painter's eye; and that by the use of a corrective yellow glass the color of his later works may be brought into strict accordance with that of his earlier paintings. A subject which he painted twice—once in middle life, and again in his later years—will also, by a simple optical contrivance, afford an opportunity of demonstrating this.

INDIGESTIBLE MORSELS.—The people of Rome are (*British Medical Journal*, March 16, 1872) very much interested just now in the fate of a poor fellow, Cipriani, who has swallowed a fork in public, prongs downwards, and who is now suffering, in consequence, agonies which are the subject of daily bulletin. Some comfort may be derived by his friends from the record which has been lately published of Mr. Lund's patient at Manchester, who survived swallowing a dessert-knife six inches long; and from the perusal of a recent article in the *Journal de Médecine et de Chirurgie* (Art. 9, 263), in which instances are cited where the alimentary canal has safely supported the most unexpected foreign bodies,—among others, lizards, a file, a teaspoon, a bat; and finally, from the whimsical but melancholy instance of a man who, to amuse himself, swallowed successfully and safely a five-franc piece, a closed pocket-knife, and a coffee-spoon, but killed himself at last in the vain effort to digest a pipe.

MORTALITY FROM SMALLPOX IN PHILADELPHIA.—The number of deaths from smallpox during the weeks ending March 30 and April 6, 1872, were respectively 84 and 73, of which 106 were of minors.

MORTALITY OF PHILADELPHIA.—The following reports are condensed from the records at the Health Office:

	For the week ending Mch. 30.	April 6.
Consumption	44	61
Other Diseases of Respiratory Organs	77	65
Diseases of Organs of Circulation	24	20
Diseases of Brain and Nervous System	62	64
Diseases of the Digestive Organs	28	19
Diseases of the Genito-Urinary Organs	7	10
Zymotic Diseases	109	113
Cancer	4	11
Casualties	8	6
Debility	44	29
Intemperance	2	3
Murder	1	0
Old Age	20	15
Scrofula	1	0
Stillborn	15	17
Suicide	1	0
Tumors	0	2
Unclassifiable	14	3
Unknown	0	1
Totals	461	439
Adults	240	222
Minors	221	217

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM MARCH 19, 1872, TO APRIL 4, 1872, INCLUSIVE.

FRYER, B. E., SURGEON.—By S. O. 43, Department of the Missouri, March 20, 1872, assigned to duty at Fort Union, N.M.

STORROW, S. A., ASSISTANT-SURGEON.—By S. O. 77, War Department, A. G. O., April 1, 1872, granted leave of absence for sixty days.

BREWER, J. W., ASSISTANT-SURGEON—By S. O. 47, C. S., Department of the Missouri, assigned to duty at Fort Dodge, Kansas.

TREMAINE, W. S., ASSISTANT-SURGEON.—By S. O. 47, Department of the Missouri, March 25, 1872, assigned to duty at Fort Larned, Kansas.

MONROE, F. LEB., ASSISTANT-SURGEON.—By S. O. 74, War Department, A. G. O., March 28, 1872, relieved from duty in Department of the Platte, to proceed to Boston, Mass., reporting, on arrival, by letter to the Surgeon-General.

LAUDERDALE, JOHN V., ASSISTANT-SURGEON.—By S. O. 77, C. S., War Department, A. G. O., granted sixty days' extension of leave of absence.

WILSON, A. D., ASSISTANT-SURGEON.—By S. O. 42, Department of the Platte, March 21, 1872, granted leave of absence for thirty days, on Surgeon's certificate of disability.

NAVY NEWS.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY SINCE MARCH 20, 1872.

Surgeon G. W. WOODS and Assistant-Surgeon C. E. BLACK detached from the Naval Hospital, Mare Island, and ordered to the U.S.S. Lackawanna.

Assistant-Surgeon R. C. PERSONS ordered to the Naval Hospital, Mare Island, Cal.

Dr. BENJ. F. ROGERS appointed an Assistant-Surgeon.